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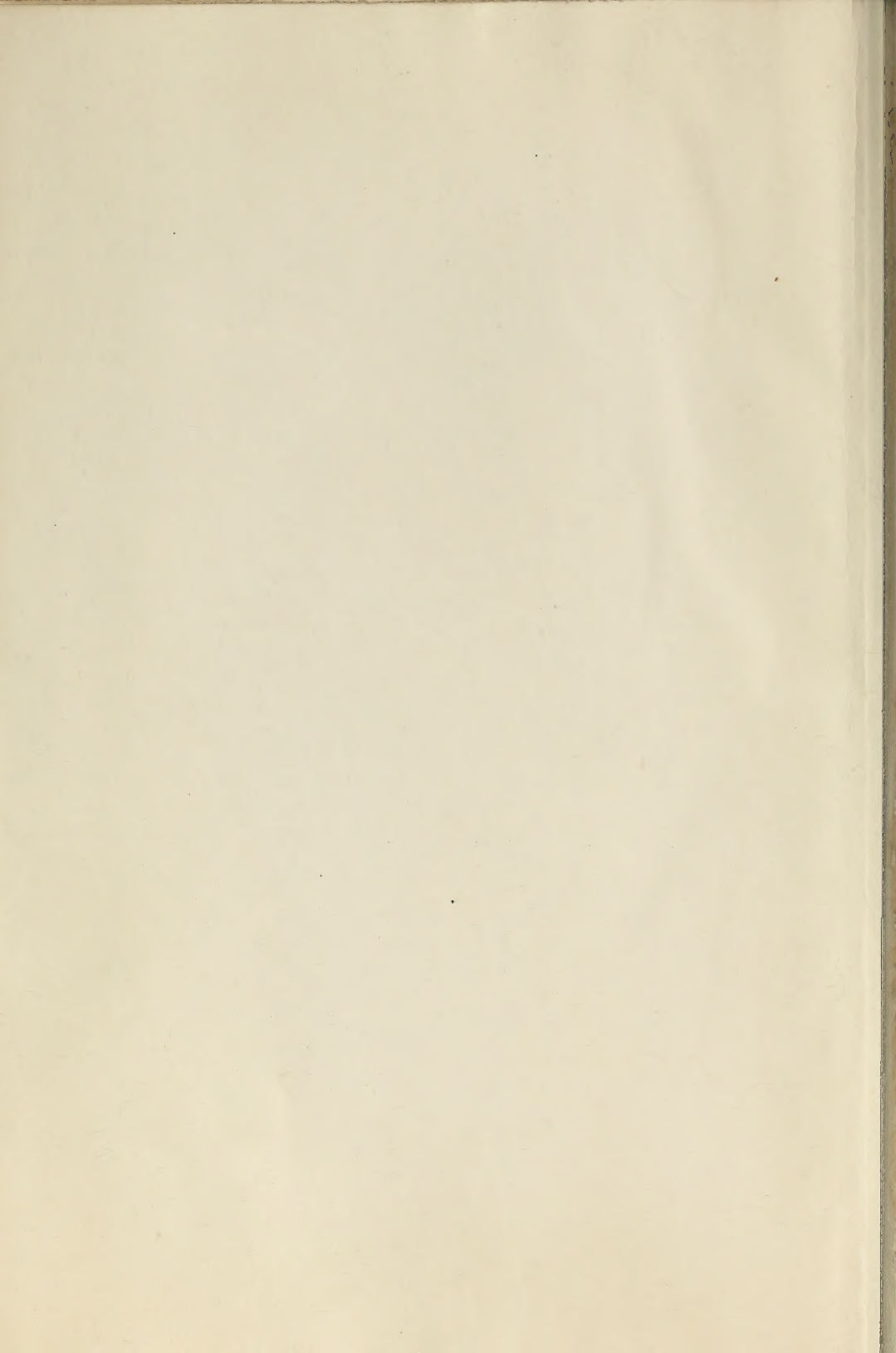
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UNITED STATES CIRCUIT COURT OF APPEALS

FOR THE NINTH CIRCUIT

THE SOUTHERN PACIFIC COMPANY, a Corporation,
THE SOUTHERN PACIFIC RAILROAD COMPANY, a Corporation,
HOMER S. KING, Trustee, JAMES K. WILSON, Trustee,
THE CENTRAL TRUST COMPANY OF NEW YORK, a Corporation,
THE EQUITABLE TRUST COMPANY OF NEW YORK, a Corporation,
THE KERN TRADING & OIL COMPANY, a Corporation,

Appellants,

vs,

THE UNITED STATES OF AMERICA,

Appellee.

TRANSCRIPT OF RECORD

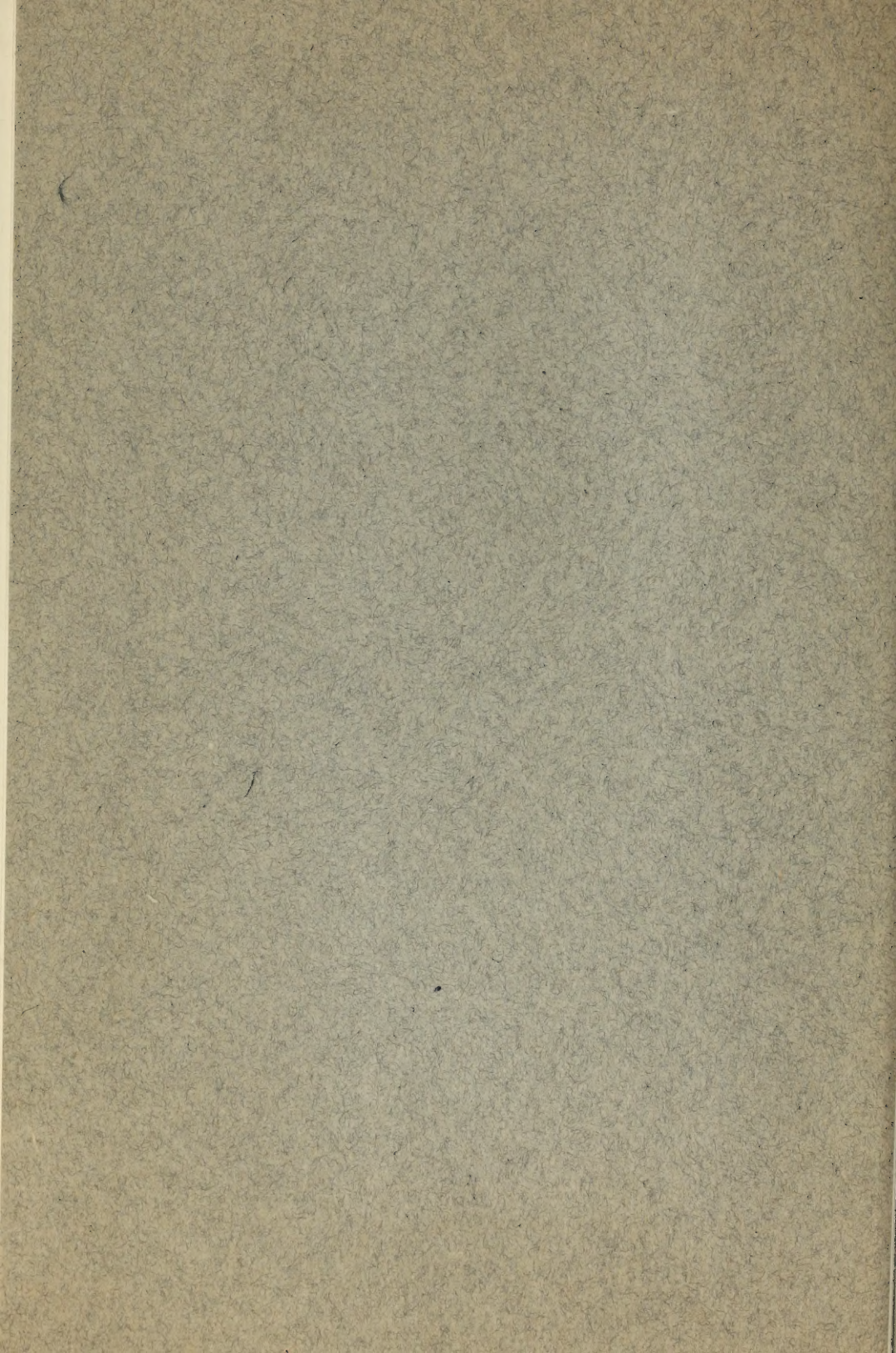
ON APPEAL FROM THE DISTRICT COURT OF THE UNITED
STATES OF AMERICA,

IN AND FOR THE SOUTHERN DISTRICT OF CALIFORNIA,
NORTHERN DIVISION.

Filed

VOLUME II MAR 23 1917

F. D. Monckton,
Clerk.



serve as a reservoir. They may migrate for large distances into the porous sand, and, consequently, the oil creating shale may be at some distance from where the oil is later found. What you must have is a porous stratum overlaid by an impermeable stratum so that the [473] oil cannot exude to the surface. It must be confined.

In addition to the discovery of sand I would require the ascertainment of the further fact that the sand was in some way connected with oil shales somewhere in the vicinity. It is a mooted question at the present time as to how far oil will migrate, but that it does migrate has been abundantly proven in all the oil fields.

If I had oil-producing shales and a porous strata overlying them I would not want further facts to enable me, as a scientist, to advise an individual that he could obtain a paying well. The amount of the shale would have some bearing upon my opinion. It would be necessary to determine the amount of such shale to some extent.

The fact that the Monterey formation is possibly overturned or faulted would not cut any figure in the oil production. The Monterey shales are creating the oil and as long as they are overlaid with porous beds, it would not matter much in what condition the shales which create the oil are in so long as they touch the porous beds above. The condition of the shales themselves is of no importance. The greatest importance is the position of the overlying strata—the porous strata which contains the oil.

If I were advising a man with reference to irrigation, I would pay attention to the water supply and select him a reservoir site; but the same thing does not apply to oil. There is no relation between the two propositions. Your producing oil strata may all be twisted. So long as you have an overlying strata to receive the oil and an overlying impenetrable strata acting as a reservoir, that is all that is necessary.

Oil would not pass through hard shales except where terrestrial disturbances had made the shale friable so that it could get through. [474]

I think it is possible from an examination of the surface of the Elk Hills to determine that there is oil underneath them.

I agree with the statement made by Mr. Ralph Arnold on page 205 of Bulletin 406 that "It must be borne in mind, however, that absolute determination by work on the surface, of the occurrence or non-occurrence of oil in any one locality, is not possible. The best that can be done is to calculate the degree of probability on the basis of surface indications and structural conditions?" because, after reading the entire paragraph from which this quotation is made, I think Mr. Arnold means that the occurrence or non-occurrence of oil in paying quantities in any one locality is not possible. While it is not so stated here, I infer that to be his meaning from reading the paragraph. Without that qualification I would not agree with him altogether. I do not agree with the statement made by Mr. Arnold on page 203 of the

bulletin mentioned, which begins, "The conclusions here to be discussed as to the course that future development will take in the McKittrick-Sunset region," etc., because I know better from experience and Mr. Arnold knows so too, no doubt, now. He certainly keeps in touch with the oil fields and later developments have shown that he was, in some instances, wrong in his belief there.

I agree with Mr. Arnold's statement beginning on page 203 of the same bulletin: "The accumulation of the petroleum and the possibility of its extraction in commercial quantities depend on several prerequisite factors. Among these are the following, briefly stated:

"a. An adequate thickness of the shales forming the original source of the oil to yield commercial quantities of petroleum.

"b. A cause for the migration of the oil from its [475] source in the organic shales. This cause is believed to be supplied by the tendency of oil to migrate by diffusion through certain media, such as dry shales; it may be and doubtless is in certain instances augmented by hydrostatic pressure wherever water had come into contact with the petroleum.

"c. Associated porous beds occupying such a position relative to the source of the oil and to impervious barriers as to permit the petroleum to pass from the source into the final reservoir and there to be confined by impervious strata. Wet shale or clay and certain fine grained water impregnated sands are believed to be among the effective barriers to the migration of the oil.

“d. Occurrence of the accumulation at a depth far enough below the surface and distant enough from outcrops to preclude the escape of the lighter hydrocarbons, and still at depths which may be profitably reached by the drill.”

All those factors existed in relation to the Elk Hills and I have now determined them. I know that the shale does exist but I did not measure any thicknesses and don't know them. In my opinion it is not necessary for any shales to underlie the Elk Hills, in the first place; the oil may have migrated into it, although I do think they underlie. There is a shale outcropping all along the eastern flank of the Temblor Range from which the oil under the Elk Hills may have come. It might migrate through the syncline lying between the Temblor Range and the Elk Hills if it is not filled with water. The oil would naturally go from the oil-producing shales into overlying sand beds, and the seepages themselves, in the Elk Hills, are evidences of a connection with the oil-producing sands.

I base my conclusion on the existence of seepages and the structural conditions of the Elk Hills.

I made an examination of the Lost Hills during the [476] the period I was in that country and made a report recommending the withdrawal of certain lands in their vicinity. I do not have that report with me now and have no data in my possession showing exactly what lands I recommended for withdrawal in that vicinity. That report is not released by the department to which I am attached. All my reports are of a confidential nature.

A withdrawal order was issued based on that report. Inasmuch as my report was of a confidential nature I do not feel at liberty to answer the question as to whether the withdrawal order corresponded with my recommendations. I have no objection to giving the information, but since the report is confidential I do not feel at liberty to do so, and do not feel at liberty to state what land I determined was oil land in the vicinity of the Lost Hills, because, as I understand our governmental regulations I am not permitted to do so, and refuse to do so unless the Commissioner of the General Land Office releases me and orders me to give the information.

I may state that the Lost Hills and the vicinity immediately in the vicinity are oil in character and have been proven to be such.

During the period I was in the vicinity of McKittrick from 1910 until the present time, I have made several different reports. I don't remember just how many of them. I may have made five; I may have made more. I made reports of my observations with reference to oil in the Elk Hills. I decline to answer the question as to whether my reports concerning the Elk Hills contain matters with reference to which I testified here on my direct examination, unless ordered to do so by some competent authority. It is not a fact that as a representative of the government I am willing to testify when called upon by the attorneys for the government, but claim the privilege of confidential communications when questioned as to the details and [477] reasons for reaching my conclu-

sions. I have no objections to testifying as to the contents of my reports and would do so if they were released.

I cannot tell off-hand, without reference to my report or the notes on which it is based, as to how far the commercially workable oil territory extends from the summit of the Lost Hills.

I would state that the eastern half of Section 13 in Township 26 South, Range 20 East, is oil in character, but I do not think the same is true of Section 14. From my general recollections of my report I should say that Section 1 in that Township was oil in character and I consider Section 36 in Township 25, Range 20, as oil in character.

I always did believe that the northeast flank of the Lost Hills anticline would be productive to a greater extent than the southwest flank because the same conditions appear on the Coalinga anticline. The southwest flank of the Coalinga anticline is productive for a shorter distance than the northeast flank.

In the Elk Hills the dip is practically the same on both sides, having an average of between three and four degrees.

In passing upon oil lands for the purpose of determining why, in my opinion, they ought to be withdrawn, I fixed five thousand feet as the limit of the depth. I know of a well in the Kern River field that was deeper than that, but I do not know when that well was sunk. It was subsequent to 1887.

On Exhibit "O" I indicated in solid red circles the land on which oil discoveries had been made. There

was only one in Township 30-23. That was in Section 26. I don't know exactly when that well was sunk except that the drilling had been started prior to the time I had been in the Elk Hills, prior to December 1910. I have been told that it was not started until after January, 1905, and have no reason to doubt that. [478]

Exhibit "O" does not show any other wells in the Elk Hills where oil had been discovered. On Section 30, Township 30-24, oil has been discovered and the log of one of the wells on Section 24 in 30-23 indicated the discovery of gas. Those are the only two wells in the Elk Hills in which I have seen oil. I know that the well in Section 26, 30-23 has produced some oil because it is plainly visible.

The other circles on Exhibit "O," which are not solid red, are wells which have not, so far, produced any oil. In Section 20, 30-23 there are three wells which have not produced oil. They are commonly termed the wells of the Scottish Oil Company, and I have been informed that one of them is in the vicinity of four thousand feet deep. I don't know the depth of the others. They were not being operated at the time I was in the Elk Hills the last time. They were operated during several times I was there in 1911; that is, drilling was going on. They were using a rotary drill from two thousand feet down, but had used standard drills up to two thousand feet. I have been informed that they did not find any oil.

The well on Section 30 in the same township is termed the Redlands well. I am informed that they

quit drilling at twelve or nineteen hundred feet. They did not find any oil. They quit too soon. I think they will find oil within four thousand feet although oil was not found on Section 20 at that depth, as I have been informed. It is my impression that they went through an oil stratum but didn't know it, because in drilling with a rotary rig the sides of the holes may be muddied up and the oil sand formation may be masked. This has happened in several instances that I know of. It happened in the K. T. & O. in the Buena Vista hills where the geologist told the drillers to pull back after they had drilled through an oil formation and didn't find it. It happened in Section 32, 31-23, to the Associated Oil [479] Company where the geologist of the company insisted that the drillers had gone through an oil sand and made them pull back and develop, in one instance, a 600 barrel well, and in another instance, a 200 barrel well, when the drillers had sworn there was no oil sand.

It is my opinion that a rotary drill should not be used in prospective territory.

I have not advised the Scottish people to pull back and find the oil. My confidential relations with the Government would not permit it.

The three wells indicated in Section 32, 30-23 as dry wells, are known as the "Midway Pacific." The latest information I had as to these wells is that one of them had been sunk two thousand four hundred feet. I don't think the others were sunk. They may have been spudded in. I don't recollect now. They did not find oil as far as I know. I believe the stratum is deeper there.

The well indicated on Section 28 in the same township is termed "The Hillcrest Oil Well" and as near as I recollect, it is seventeen or eighteen hundred feet. The log on that well does not show oil but shows gas several times. They have not drilled for quite a while ; quit because of lack of funds, as I was informed.

On Section 34 in the same Township four dry holes are represented on Exhibit "O." They are known as the "Maxwell" wells. I have no notes as to the depths of these wells. They cannot be of any considerable depth or I should have noted it. They were not being drilled the last time I was there.

In Section 22 of the same Township, four dry holes are noted on Exhibit "O." These are the Associated Company's wells. I do not recollect having received the logs of the wells in this section, but I believe I was informed that one of the holes there [480] is in the neighborhood of twenty-five hundred feet deep. They did not find oil as far as I know of.

In Section 26 in the same Township, three dry holes and one oil well are indicated on Exhibit "O." The Associated Oil Company claims them and has done work on them. I do not know how deep any of the three dry wells are, and to the best of my recollection, I think that none of them is over 2,000 feet.

On Section 24 of the same Township four dry wells are represented on Exhibit "O". They are the Associated Company's wells. I have been informed that one of them is in the vicinity of thirty-five hundred feet deep, as near as I can recollect now. One of the others is ninety feet and I don't

know the depth of the other two. I have been informed that they found oil in one of the wells. I am pretty sure that it is in the well in the southwest quarter. That well was not marked on Exhibit "O" for the reason that the information that they had found oil came to me since the map was made and after the map was introduced in evidence. From an examination of the log of that well I deem it very probable that oil has been found there. I have not seen it. It is found, as near as I remember, between 3100 and 3200 feet. I was not informed as to the quantity of oil found. I believe these wells are being tested at the present time.

In Section 30, 30-24, three dry wells are represented. I cannot recollect how deep they are. The best of my recollection is that they were only spudded in.

There are no wells at all in Section 32, 30-24 where I found an oil sand.

The solid red circle on Section 7, 31-24 of the Exhibit "O" is a well belonging to the Elk Hills Company. The last report I remember from that well, it was 3800 feet. My recollection is that it revealed oil; I think gas and oil.

In the flats between the Buena Vista Hills and the Elk [481] Hills, there are a number of dry wells. I have been informed that one well in Section 28, 31-24 is four thousand feet. No oil was found that I heard of.

I know where Bellridge is. The Bellridge camp or the first camp is situated in Section 33, 28-21. I know a well in Section 9 in the township south of

that, sunk by the Union Oil Company. The last report I remember from that well it was 3160 feet and the log did not show any oil.

I do not know of the Gould Hill anticline.

The fact that that well had been sunk to such a depth without discovering any oil sand did not indicate to me that the overlying formation known as the "McKittrick" formation on the northeast side of the Temblor Range, was far thicker than I had estimated. A more likely reason why they had not discovered oil would be that this well, commonly called the Hopkins Joint well, lies in the syncline between the Bellridge anticline and some other anticline further to the southwest. It has not been positively proven that there is an anticline northeast of the Union Oil Company's well. I cannot state whether there is one there or not.

I am of the opinion that if the Elk Hills are valuable for anything, they are valuable for oil. I do not think they are commercially valuable for fuller's-earth. Some of the material I have found in the Elk Hills I would term "Fuller's-Earth", but in my opinion, there is not sufficient of it existing in the Hills to be commercially valuable. A great deal of what is called Fuller's-Earth in the Elk Hills is clay. I do not think that the gypsum deposits in the Elk Hills are commercially valuable.

RE-DIRECT EXAMINATION OF

F. OSKAR MARTIN [482]

Taking into consideration all of the wells in the

Elk Hills and all my information regarding that region, I am of the opinion that it is chiefly valuable for oil.

In my opinion, the fact that the land had been withdrawn by the Secretary by order of the President, had some bearing upon the abandonment of certain wells, because some of the drilling companies may have realized that by recent decisions of the Secretary of the Interior or the General Land Office the withdrawal of September 27, 1909, might be strictly enforced, and realizing that they could not get a patent to the land unless they had started development work prior to that date, that may have influenced them to abandon the work. And, in other cases, I was told, and I have no reasons to doubt, that it was a shortage of funds.

As to the relative energy with which the Associated Oil Company has prosecuted its oil operations in the Elk Hills and in other places where it is operating, I will say that from my visits to the Elk Hills and other properties of that country, they displayed less energy in the development work in the Elk Hills than they did on other holdings. Several times I have been in the Elk Hills and I have only found watchmen there and no work progressing on some of the wells.

RE-CROSS EXAMINATION OF

F. OSKAR MARTIN

According to my observation, the Associated Oil Company has been more active in its operations in

the Elk Hills than any other company there, and has revealed the only oil that has been found in those hills, so far as I know. I have not discovered any indications of a desire on the part of that company to bury up or conceal the oil there. They furnished me information and logs. [483]

At this time the plaintiff offered in evidence a certified copy, exemplified under the seal of the General Land Office, of the official plat of the survey of Township thirty south, Range twenty-three east, M.D.M., approved by the Surveyor General on March 19, 1856, showing the earliest surveyed portion of the Township, which was marked "Plaintiff's Exhibit P". Plaintiff also, at that time, offered in evidence certified copy of the field notes of the survey of that Township made by J. M. Duee, in 1901, which was marked "Plaintiff's Exhibit Q", and from which a general description therein was read into the record as follows:

"All that portion of Township 30 South, Range 23 East, Mount Diablo Meridian, included in this contract, is mountainous and the soil is similar throughout, being of a sandy nature, with occasionally some fine gravel and in my judgment should be termed second-class land.

"There is no timber, and the underbrush consists of low sage-brush.

"There are no springs or running water in the Township.

"There are no settlers on any of this land, but it has been used for many years as sheep pasture.

“This township is situated within what is known as the Midway Mineral District, which is the name given to a district within which many successful oil wells have been developed. To the northwest is what is known as the McKittrick District, the center of which is about Sec. 18, T. 30 S., R. 22 E. To the southeast is what is known as the Sunset District, the center of which is about Sec. 7, T. 11 N., R. 23 W., and the Midway District is on the line of oil developments between the two.

“The surface of the ground in T. 30 S., R. 23 E., from the southeast corner running northwesterly shows a geological formation, with asphaltum exudations, that is regarded by experts as an almost sure indication of the presence of valuable petroleum [484] deposits.

“The land I have surveyed being more valuable for mineral than for agricultural purposes, I return the following sections as mineral land: S.E. $\frac{1}{4}$ and W. $\frac{1}{2}$ of Sec. 14, all of Sec. 15 and 16; E. $\frac{1}{2}$ and S.W. $\frac{1}{4}$ of Sec. 17; S.W. $\frac{1}{4}$ and E. $\frac{1}{2}$ of Sec. 19, all of Secs. 20-21-22-23-24-25-26-27-28 & 29; E. $\frac{1}{2}$ and N.W. $\frac{1}{4}$ of Sec. 30; N.W. $\frac{1}{4}$ and E. $\frac{1}{2}$ of Sec. 32 and all of Secs. 33-34-35 and 36.

“The Kern County Abstract Co. at Bakersfield has furnished me a diagram showing the mineral claims recorded on the County Records, and I find these claims represented on the ground by stakes and mounds.

“I submit herewith a list of the mineral claimants as reported by the said Abstract Company.”

Plaintiff then read into the record the list referred to in the general description quoted above. [485]

A. C. Veatch, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION

By Mr. Mills:

Q. Mr. Veatch, will you please state your full name and residence.

A. A. C. Veatch. My residence is Washington, D. C.

Q. Mr. Veatch, what has been your training and experience?

A. In 1897 I was assistant in charge of one section of the Indiana University Geological Survey, working in Indiana. In 1898 I was a member of the Cornell University Geological Survey of the Tertiary, working in the coastal plain from New Jersey to Mississippi. 1898 to 1900 I was assistant state Geologist of Louisiana. 1900 and 1901 assistant in charge of areal and stratigraphic geology in Cornell University summer school of field geology. 1901 and 1902, geologist Houston Oil Company, working in the Louisiana and Texas oil fields. 1902 I was appointed Professor of Geology in the State University of Louisiana, and State Geologist, which position I resigned to accept a position in the United States Geological Survey. I was with the United States Geological survey from December, 1902, until 1910. 1910 and 1911 I was engaged in work in the Trinidad and Venezuela oil fields. Generally, since my resignation from the Geological Survey, I have been engaged in work as consulting geologist.

Q. Were you, at any time while in the United States Geological Survey, chairman of the land classification board?

A. Yes; I was chairman of the coal land classification board and chairman of the oil land classification board.

Q. Did you, at any time, at the request of President Roose[486]velt, make any examination into the coal land conditions and laws and so forth of any countries besides the United States?

A. I was appointed a special commissioner to investigate the mining laws of Australia and New Zealand in 1907, and made examinations.

Q. Are you acquainted, Mr. Veatch, with the oil fields of that portion of California represented by what is known as the McKittrick and Sunset districts?

A. Yes.

Q. Do you know what has been termed, locally, as the Elk Hills?

A. Yes; I have personally visited the Elk Hills.

Q. When?

A. In February and March of this year.

Q. Will you please describe the general physical aspect of the Elk Hills?

A. The Elk Hills are an elongated group of hills extending northwest and southeast, about sixteen miles long, six or seven miles wide in the widest portion, which rise rather abruptly from the San Joaquin Valley, on the western side, to an elevation of a thousand to twelve hundred feet above the level

of the valley at that vicinity. It is separated from hills on the south, the Buena Vista Hills, by a relatively level valley, from which it rises to an elevation of five or six hundred feet from the highest portion of the valley. A comprehensive idea of the aspect of the Hills, their general relation to the San Joaquin Valley, is shown in photographs that I took at that time.

Q. Now, have you made such examination of the hills as to be able to state whether or not the general aspect, as you saw them in the early part of this year, is substantially the same, with the exception of oil derricks or works of man, as they were [487] or must have been in the year 1903 and '04, and, if so, state your reasons.

A. I should say that except for artificial changes at the hand of man, the hills are essentially in the same condition. The aspect would not vary in any material degree from what it was in 1904, for the reason that it is a region of very low rainfall and the amount of erosion that would take place in the few years between 1904 and 1912 would be very inconsiderable, entirely negligible.

Q. Now, have you made any photographs of any portions of the Elk Hills during your visits there in the early part of this year?

A. Yes.

Q. Have you the photographs here?

A. Yes; I have.

Q. I will show you this photograph. Will you tell me who took it and what it represents?

Q. Were you, at any time while in the United States Geological Survey, chairman of the land classification board?

A. Yes; I was chairman of the coal land classification board and chairman of the oil land classification board.

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Q. Now, have you made such examination of the hills as to be able to state whether or not the general aspect, as you saw them in the early part of this year, is substantially the same, with the exception of oil derricks or works of man, as they were [487] or must have been in the year 1903 and '04, and, if so, state your reasons.

A. I should say that except for artificial changes at the hand of man, the hills are essentially in the same condition. The aspect would not vary in any material degree from what it was in 1904, for the reason that it is a region of very low rainfall and the amount of erosion that would take place in the few years between 1904 and 1912 would be very inconsiderable, entirely negligible.

Q. Now, have you made any photographs of any portions of the Elk Hills during your visits there in the early part of this year?

A. Yes.

Q. Have you the photographs here?

A. Yes; I have.

Q. I will show you this photograph. Will you tell me who took it and what it represents?

A. I took the photograph on the 1st of March of this year, the smaller negative from which this picture was enlarged. It was enlarged directly from the negative and so cannot differ in any respect.

Q. Negative made by you?

A. Yes; exposure.

Q. What does it represent?

A. This is a general view of the Elk Hills. It is a view looking southwest from the bridge over Buena Vista Slough, in Section 28, Township 29 South, Range 23 East. The relatively level San Joaquin Valley shows in the foreground, and the hills in the background. The portion of the Elk Hills shown is that portion involved in this suit and I know from examination in the hills that the lands lie on both sides of the summit shown in this picture. [488]

Q. Will you please state whether the photograph that you have in your hand is a correct picture of the conditions as you found them at the time you took that picture?

A. It is.

Mr. Mills—I offer this in evidence.

Mr. Lewers—No objection. When I say “no objection” to the introduction of any exhibit, of course I don’t mean to waive any former objection which I have made.

Mr. Mills—No.

The photograph last referred to and offered in evidence is marked “Plaintiff’s Exhibit “S”—L.L.”

Q. By Mr. Mills—Now, I hand you another pho-

tograph, Mr. Veatch. Will you state whether you made it?

A. I did.

Q. And on the same trip on which you made these other photographs?

A. Yes. This negative was exposed on March 1st, 1912. It represents the southwest portion of Section 19.

Q. Of what township and range?

A. Township 30, Range 23 East, and shows the barren, gullied character of these lands.

Q. Does that picture faithfully represent the conditions in the field at the time you took the picture?

A. It does.

Mr. Mills—This is offered—subject, I suppose, to the same possible objection.

Mr. Lewers—It may be admitted subject to our general objection. [489]

The photograph last referred to and offered in evidence is marked "Plaintiff's Exhibit T—L.L."

Q. By Mr. Mills—I hand you another picture, Mr. Veatch. Will you please state who took it and what it represents?

A. I took the picture on February 22nd of this year. It represents Section 23, of Township 30 South, Range 23 East, and adjoining lands.

Q. Does the picture faithfully represent the conditions as they were in the field at the time you took the picture?

A. It does.

Mr. Mills—I offer this in evidence as government's Exhibit U.

Mr. Lewers—It may be admitted, subject to our general objections.

The photograph last referred to and offered in evidence is marked "Plaintiff's Exhibit U—L.L."

Q. By Mr. Mills—I hand you another picture, Mr. Veatch. Will you please state who took that picture and what it represents?

A. I took this picture, on February 22, or the negative from which it was made. It represents portions of Sections 23, 24, and 25 of Township 30 South, Range 23 East.

Q. Does that picture faithfully represent the conditions in the field at the time you made the exposure?

A. It does.

Mr. Mills—We offer this in evidence as government's Exhibit V.

Mr. Lewers—It may be admitted, subject to our general [490] objection.

The photograph last referred to and offered in evidence is marked "Plaintiff's Exhibit V—L.L."

Q. By Mr. Mills—I hand you another picture, Mr. Veatch. Will you state whether you took that picture and what it represents?

A. I did. It represents Section 25 of Township 30 South, Range 23 East, and adjoining lands.

Q. Does that picture, with the exception of the oil derricks and artificial creations of man, faithfully represent the conditions as they existed in 1903 and '04?

A. It does.

Mr. Mills—I offer this in evidence as government's Exhibit W.

Mr. Lewers—Same objection.

The photograph last referred to and offered in evidence is marked "Plaintiff's Exhibit W—L.L."

Q. By Mr. Mills—I hand you another picture, Mr. Veatch. Please state whether that is the result of an exposure made by you in the Elk Hills and what it represents.

A. It is. It represents the northwestern portion of Section 29 of Township 30 South, Range 23 East.

Q. And, with the exception of the derricks and buildings on the land, does it faithfully represent the conditions as existing in the Hills in 1903 and '04?

A. It does.

Mr. Mills—We offer this in evidence as government's [491] Exhibit X.

Mr. Lewers—It may be admitted, subject to our general objection.

The photograph last referred to and offered in evidence is marked "Plaintiff's Exhibit X—L.L."

Q. By Mr. Mills—I hand you this picture, Mr. Veatch. Will you please state whether the picture was taken by you, and, if so, what it represents?

A. It was. It represents the central portion of Section 29, Township 30 South, Range 23 East.

Q. And, with the possible exception of the road shown on the picture, does it faithfully or substantially represent the conditions in 1903 and '04?

A. It does.

Mr. Mills—We offer this in evidence as government's Exhibit Y.

Mr. Lewers—It may be admitted, subject to our general objections.

The photograph last referred to and offered in evidence is marked "Plaintiff's Exhibit Y—L.L."

Q. By Mr. Mills—Mr. Veatch, have you endeavored to obtain data by which to correctly depict the state of knowledge of development of this field—and by that I mean the Elk Hills and surrounding territory—including the lands in suit, in 1904?

A. I have.

Q. And, as the result of this examination, the collection of the information, have you reported on the mineral value of this area as shown by evidence existing in 1904? [492]

A. I have.

Q. What is the nature of that report?

A. In that report I endeavored to give, as concisely as possible, the simple principles which guide practical men in determining, in advance of development, the value of lands for minerals where these minerals, such as oil, occur in stratified deposits, and to show the connection of these principles with the Elk Hills territory, and, specifically, the land involved in this dispute.

Q. I have here a report which you furnished me on March 21st of this year, and I will ask you if you recognize it as a report made to me?

A. It is.

Q. In order that the matter may be presented in

the record in concise form, I will ask you to read that report into the record.

Mr. Lewers—I object to that method of introducing the testimony. The witness is here, and if he has any testimony to give it should be given by the method of question and answer in order that we may make our necessary objections as each matter comes up, and this method of endeavoring to introduce the evidence of a witness by introducing a document which he has prepared beforehand is without sanction, and is objectionable and is objected to, on the ground that it is purely a hearsay declaration of a witness, made out of court and not made under the method provided for the taking of testimony in court. I make the further objection that we have had no opportunity to examine this report the witness is now called upon to read into the record.

Q. By Mr. Mills—I will ask you if the report you have prepared is predicated entirely upon conditions existing prior to 1904? [493]

A. It is.

Q. I think in order to get the matter presented in connected and concise form and in consideration of the fact that the report is very short, I will ask you to read it into the record.

Mr. Lewers—Will you permit me to examine the report before that is done?

Mr. Mills—Certainly. It is very short, and I simply want to have it some place in the record in concise and connected form.

Q. I will ask you, Mr. Veatch, to state, in a gen-

eral way, what your opinion was as to the conditions, in 1904, and your opinion generally upon the subject-matter of your report. You may refer to your report in any way you desire, if you care to.

Mr. Lewers—I object to that method of examination as an obvious subterfuge to avoid the objection heretofore entered; and I ask to be permitted to examine that report before that is done.

Q. By Mr. Mills—Do you care to refer to it?

A. No.

Q. All right. Go on and answer the question. You may state, in cases where mineral occurs in stratified rocks, whether it is frequently possible or at all possible, from surface exposures, to determine their depth, in your exploration?

Mr. Lewers—To which we object, on the ground that the question is leading and suggestive.

A. Where minerals occur in stratified rocks, it is frequently possible to determine with exactness their extent and value and other factors important in their appraisalment and development. That is the method which has been employed for many years by practical men in such subjects. Stratified [494] rocks are laid down in relatively regular layers, for the most part, beneath the sea, and are to be contrasted with other rocks formed by igneous intrusions or volcanic outpourings or which have been so altered by metamorphic action as to lose their former characteristics. The individual layers of stratified deposits can be traced for many miles, and in many cases hundreds of miles, showing to a great extent the same charac-

teristics, and it is on this regularity or irregularity as shown by the outcrop that practical men base their conclusions and have spent great sums of money in developing minerals of the kinds which occur in stratified deposits.

Q. By Mr. Mills—Now, what substances of economic importance, if any, occur in stratified rocks?

A. Among the most important are coal, water, oil and phosphate.

Q. Do these differ in any degree in the mode of occurrence from vein or lode deposits?

A. They differ very markedly from most deposits of ores, and entirely from veins or lodes, which are of very irregular character.

Q. Where stratified rocks containing coal, phosphate, oil and water are exposed at the surface by uplifting or folding and erosion, you may state whether it is possible to examine stratified beds of that character at the surface and to determine their extent.

A. It is on these exposures that the conclusion is based. The beds, after deposition, are folded up and eroded, and the effect of this erosion is to enable the geologist to examine the character of the rocks as fully and carefully as he could in an enormous trench dug through the surface of the earth. Extending for many miles it forms a much more sound basis for [495] judgment than a single development.

Q. Can you draw any analogy in that mode of study of stratified beds in the case of oil deposits with that of coal, for example?

A. Yes. They both occur in stratified deposits and are subject to much the same laws; and you can—In the case of a coal deposit, where the erosion has entirely removed the strata around a given area, you have that area rising as a hill above the surrounding region. If, in such a case, you find the coal outcropping on one side of the hill and follow that coal bed around the hill, as you can, by natural exposures, and find it goes entirely around the hill, you know absolutely that the coal underlies the hill and are justified in buying that land as coal land in the absence of any development. In a similar way, if you find a coal bed exposed on the side of a valley, dipping beneath that valley, and follow the bed around the valley, you know that the valley is underlaid with coal, and by the change of slope of the beds you can calculate the depth of that coal bed in that area which is underlaid with coal. In the case of oil or water you can follow the sand bed or other porous bed suitable for containing them, in exactly the same way as you do the coal bed. You can determine the existence of that porous strata in the same way you can determine the existence of the layer of coal, and in a similar way you can calculate the thickness or the depth of that porous bed under different portions of the territory. You follow the same method. The presence of oil or water in the porous bed can be indicated either by springs along the outcrop, in the case of water, or seepages in the case of oil, or, failing those, their presence may be demonstrated by a well or a group of wells. Such a well or group of wells,

taken in connection, or such [496] seepages taken in connection, with the determinal persistence of these beds and the geological structure, warrant the development of territory in which you have not drilled. It shows the presence of the substance desired under the lands.

Q. What does the result, the value of the result, rather, of such observation depend upon?

A. It depends upon the accuracy of the observations.

Q. May a competent geologist determine the extent of an area by such observations—an area containing deposits of coal, phosphate, oil or water?

A. Yes; it is frequently done.

Q. Do you know of any illustration, in the case of underground water, for example?

A. Well, the most notable case of extensive drilling on predictions of geologists is in the case of underground waters. The United States Geological Survey has for many years been preparing reports on underground water basins, and it is one of the important services that this bureau has rendered the country, by the determination, in advance, of the drilling of the artesian basins. Notable cases are the Dakota sandstone, in North and South Dakota, the Saint Peter sandstone in Wisconsin and Illinois, and numerous cretaceous and tertiary water horizons through the Atlantic and Gulf Coastal plains.

Q. Extending how far?

A. Extending from New Jersey to Mexico.

Q. In what does oil differ from water in such determination?

A. It differs from water in this, that where water and oil [497] are both present in the porous bed, the water tends to accumulate in the lower portions of the strata or synclines, forcing the oil into the higher portions of the folds or anticlines of the strata; and it is for this reason that it is particularly important, in a new field, to determine the position of the anticlinal features. Water and oil do not always occur in the same porous strata; and, where they do not, the oil, of course, is—the synclinal is just as good as the anticlinal area, probably better.

Q. What would you say about the determinability of the extent of an area of deposition of oil, that is, by wells or groups of wells, as to the presence of oil in synclinal areas?

A. The presence of oil in synclinal areas is a matter of doubt—there is the possibility of water in the synclines; and for that reason, in new developments the development starts along the outcrop near the seepages, that is, down the dip from the seepages, and progresses, or should progress, gradually toward the synclinal area, with the end of determining the exact limit of the water saturation, if there be any; and, in the same way, the development would start in the anticlinal areas and work down to the synclinal areas, the anticlinal being much better territory for the reason that it lacks the danger of water.

Q. You may state whether the oil value of lands not yet drilled may be demonstrated by any evidence whatever excepting by the drill?

A. I think they can, in the same way that the coal can be demonstrated by the outcrops. It is the same principle in every way. It has frequently been demonstrated in advance of the drilling.

Q. Now, in the case of the Elk Hills, have you made any [498] examination of those hills with reference to their possible oil-bearing value?

A. I have.

Q. What conclusion did you reach as to the oil character of the Elk Hills?

A. That they are oil land. I may say that my investigations were directed primarily to the determination of the conditions existing in 1904 and the conclusion is predicated on the evidence which existed at that time. In a general way to outline the proposition, there are a series of porous beds and associated clays which are well designed, on the one hand, to afford a reservoir for the oil, and, on the other hand, to prevent undue leakage, which may be traced for many miles along the flank of the Temblor Range, the east flank, in this case, being the important one for this question. In that area, there are seepages which have been there from the beginning, which extend for a distance of over fifteen miles, showing the persistence of the oil saturation in these porous layers.

Q. Are they exposed, at all, in any way—those beds?

A. Yes.

Q. Whereabouts?

A. They are exposed on the east flank of the Tem-

blor Range and may be followed there for a great many miles and the porous character readily determined. Now, taking this distance of seepages of fifteen miles, and which is, I may say, greater than that, but that is an area that is adjacent to this that is easily shown, it shows impregnation of oil strata extending at least seven and a half miles from a given center. Applying this distance of seven and a half miles from the outcrop, it includes the Buena Vista Hills and the Elk Hills, and the only question which could remain regarding the oil value of the territory outlined [499] in this way would be with respect to the synclinal areas, the valley lying between the Elk Hills and Buena Vista and McKittrick Hills and the valley lying between the Buena Vista Hills and the outcrop along the front of the range. Both the Buena Vista Hills and the Elk Hills fall within the proven area from geologic determinations.

Q. Now, referring to the flanks of the Temblor Range that you have spoken of, in which way do those beds, if you know, dip, in a general way?

A. They dip, in a general way, towards the San Joaquin Valley. The general slope is interrupted by folds which are, roughly, parallel to the main fold of the axis of the Temblor Range, and, forming these folds, rise as groups of hills above the surrounding country, and their structural character is evident even to the most casual observer.

Q. What are they, broadly speaking—the evidences you refer to? Is that the Elk Hills and Buena Vista?

A. They are elongated domes of ideal structure for oil accumulation.

Q. Are there any other evidences which would in anywise corroborate the prediction of oil in the Elk Hills you have stated?

A. If any corroboration were needed with regard to the line of evidence outlined, it is found in the seepages in the Buena Vista Hills and in the Elk Hills; and any questions which might arise with regard to the persistence of the oil, as shown by these seepages, are conclusively set aside by a great series of wells which had been sunk prior to 1904 down the dip from these seepages, and connecting, showing that the seepages represented oil in commercial quantities.

Mr. Lewers—I move that all the testimony concerning wells [500] sunk before 1904 be stricken out, as it appears that is purely hearsay. The witness was not in there until 1912.

Q. By Mr. Mills—Do you know whether or not, from any public evidence accessible to you, that these seepages you have referred to have been known for any considerable period of time?

Mr. Lewers—Objected to, as calling for hearsay testimony.

Q. By Mr. Mills—Or from any exhibits in this case?

A. Yes. The seepages are shown on a number of the township plats which have been introduced. They have been testified to by a great number of witnesses. The witnesses have testified to considerably more

seepages than I had to base my conclusion on. If it was possible to strengthen the conclusion, it would be strengthened by some of that evidence.

Q. What would you say of the evidence from the geologic structure and seepages to which you have referred, along the base of the Temblor Range, as in any wise tending to form an opinion in your mind as to the oil value of the land in the Elk Hills, and particularly in the lands in suit?

A. Well, as explained, the determination of the oil value of the lands in the Elk Hills is predicated on the seepages which occur along the flank of the range. They prove the extent of the oil-impregnated zone and in that way demonstrate the oil value of the Elk Hills.

Q. Referring to the wells testified to by you as existing prior to 1904 along the flank of the Temblor Range, how was your knowledge of these wells gained?

A. It was gained from various published reports, but specifically showing the exact locations and exact conditions in 1904, from the Barlow & Hill prospectus of that region which have been introduced in evidence.

Q. And as testified to by Mr. Hill? [501]

A. Yes.

Q. And Mr. Blodget and other witnesses?

A. Yes; a great number of witnesses testified to the existence of wells in there, but the specific locations of the wells shown on Exhibit I, taken from the

Barlow and Hill map, which is the most complete and comprehensive statement of those wells.

Q. Those maps to which you refer are government's Exhibits H a, b and c?

A. I think so.

Q. Now, how was your knowledge of seepages obtained?

A. It was gained from various public records, the field notes and plats of the surveys in this region, and from the affidavits and statements of persons who have since appeared and testified in this suit.

Q. Have you been present at all the sessions of the hearing of this equity suit No. 221, and have you heard the testimony of the various witnesses produced by the government?

A. I have.

Q. Now, in order to have it some place in the record, specifically, I will ask you, if you can do so, to give reference, by page numbers of the Examiner's transcript, to the testimony of the witnesses already sworn by the government, regarding seepages in this region, prior to 1904.

A. With reference to the country northwest of McKittrick, Silas Drouillard testified, page 35 of the Examiner's record in this case, he followed the seepages extending northwest from McKittrick to Carneros Spring, which is in Township 29 South, Range 20 East, fourteen miles northwest of McKittrick. Specifically, B. K. Lee, page 297, testified to dry oil sands in Sections 18, 35 and 36, in Township 29 South, Range 21 East, and F. J. Sarnow, page 233,

also knew of the sand in Section 36. [502] Nearer McKittrick, in

Township 30 South, Range 21 East, Silas Drouillard, pages 33 and 42 spoke of using the oil at the Bond Spring for doctoring stock, in 1874, and this locality is specifically described by B. K. Lee, page 296, as the tar spring in the southwest quarter of Section 12.

Township 30 South, Range 22 East, the township in which McKittrick is situated, the large seepages which occur along the faulted structure south and west of the town of McKittrick or Asphalto as it was called in early days, are described by many witnesses. H. M. Shreve, who first came to this locality in 1888, page 762, says: "In various portions of 30-22, in the immediate vicinity of McKittrick there are large showings of liquid asphaltum oozing from the ground." These are likewise described by Charles Brisco, page 495, and F. J. Sarnow, page 212, Silas Drouillard, pages 62, 72 and 73, Ira M. Anderson, page 162, John Jean, page 96, H. A. Blodget, pages 607 and 609; and W. E. Youle, page 1010. Specifically, in this Township 30 South, 22 East, Silas Drouillard, pages 78 and 79 described oil sand cropping in Section 5; B. K. Lee, page 297, in Sections 8, 17, 18, 20, 28, 29, 34 and 35. The seepage near the railroad track, in Section 14, which lies on the axis of the Elk Hills anticlinal, was mentioned by Ira M. Anderson on page 188; Colon F. Whittier page 797; N. C. Farnum, page 859; F. J. Sarnow, page 210; B. K. Lee, pages 297 and 309; C. W. La-

mont, page 1083, Ira M. Anderson, page 196, and N. C. Farnum, page 896, fixed the seepage at some distance from the railroad track in the hills.

Mr. Lewers—I object to this method of examination. The time has not come for the argument of this case. I object, on the ground that the witness is drawing his conclusions as to [503] the meaning of the testimony, which is a matter for the court to determine. And I move that the answer so far given be stricken out.

A. (Continuing) S. P. Wible, page 441, refers to seepages in a number of places west of the railroad track, which includes Sections 15 to 17. On page 443 he testified that he told Mr. Owen about them in 1901 and Mr. Owen said he had found others as well. Exhibit C, plat of survey of August 18, 1871, shows oil springs in Sections 20, 28 and 29, and Exhibit D the survey of November 18, 1893, shows evidence of oil and asphaltum in Sections 19, 20, 27, 28 and 29.

Q. By Mr. Lewers—What township?

A. This is all in 30-22. W. E. Youle, page 1014 described a heavy bed of asphalt, about ten feet thick, in Section 24; Ira M. Anderson, pages 162 and 163, describes asphaltum, oil sand, and gas which he lit in Section 34; Colon F. Whittier, page 799, described asphaltum along in the fault running from the northwest to the southeast and cropping very prominently in Sections 34 and 35.

Township 30 South, Range 23 East.

Captain Frank Barrett, page 822 and 823, 828 describes a seepage which gave trace of oil chloroform

test, in Section 17, and states, in general, that there were several seeps. This seepage in 17 is also described by J. W. Kaerth, pages 702 and 703. In Section 25, near the southwest quarter, J. W. Kaerth, page 702 and 703, describes an oil seepage; and M. S. Waggy speaks of a seepage of oil sand, pages 241 and 257, which he locates as approximately in Section 26.

Township 30-24.

The seepage in Section 32 is testified to by numerous witnesses: Silas Drouillard, 31, 36, 38, 49, 53, 56, 57. [504] Mr. Drouillard says when he first saw the seepage in 1874 it was wet with oil; It was a dry seepage when he saw it in 1899. Seepages mentioned by John Jean, pages 84, 87, 88; L. G. Sarnow, 104, 106, 114; Ira M. Anderson, 167; F. J. Sarnow, 211, 222, 223, 231; M. S. Waggy, pages 235, 238, 248, 258. Mr. Waggy describes it as a dead oil sand with an odor of oil or petroleum, which burned on fire. J. I. Waggy, page 328, 331 and 336; S. P. Wible, page 434, shows that Mr. Josiah Owen knew of this place prior to 1903 or 1904. Charles Brisco, pages 496 and 497 describes it as a small brea bed, of dried oil, dried asphaltum, and states that he took Mr. Josiah Owen there in 1903. Charles Haberkern, on page 558, speaks of this as a seepage visited by Josiah Owen in August or September, 1904. W. G. Sylvester, page 583, speaks of this as a seepage which you could light and it would burn. The seepage is also described by H. P. Dover, 777, 782, who states that he made another test of it. N. C. Farnum, page 857, 858. C. W. Lamont, pages 1080 and 1081.

With reference to the Elk Hills in general, which includes the hill land in the west center of 30-22 and the south of 30-23 and south of 30-24 and the north of 31-23, 24 and 25; Ira M. Anderson, page 166, states that in numerous places he found sands which gave oil test with chloroform, in 1899. W. E. Youle, page 1020, describes oil sand; on page 1021 states that he tested it with chloroform, found the hills full of gas, burned with gas all over; page 1064 refers to oil sand which gave positive test with chloroform, and 1067 gas stained sand.

Township 31 South, Range 21 East.

Colon F. Whittier, page 799, describes a large cropping in Section 14 and an oil seepage in Section 24.

In Township 31 South, Range 22,

I. M. Anderson, pages 163-164, describes oil seepage on [505] Section 22 similar to the asphalt and oil sand in Section 34 of the township to the north. H. A. Blodget, page 609, speaks of large seepage at the head of Elk Valley, two and a half or three miles southeast of large seepage near McKittrick. Colon F. Whittier, 799, speaks of oil seepage in Section 19.

Township 31 South, Range 24 East,

F. D. Lowe, page 133, describes an oil sand in Section 1 as half a mile east of the point on Section 9 where he found an oil sand 300 yards due north of the northeast corner of Section 11. On page 133 he mentions another oil sand, one-half mile west of this point, on the section line, which would be in the central portion of Section 2. He also, on page 135,

speaks of a well drilled to the depth of 560 feet, in 1901, which contained a small showing of oil, and a gas supply, which was used for cooking.

In Township 32 South, Range 22 East,

Colon F. Whittier, page 799, speaks of seepages in Sections 1 and 2, and the seepage in Section 2 is also mentioned by B. K. Lee on page 297. On page 297 the township is erroneously stated as 31-23, but this was corrected on page 319 to 32-22.

Whereupon the further taking of testimony herein was adjourned until 2 O'clock P.M., at the same place.

On Wednesday, May 8, 1912, at 2 o'clock P.M., the further taking of testimony herein was resumed.

A. C. VEATCH,

recalled, DIRECT EXAMINATION resumed.

A. (Continuing.) With reference to

Township 32 South, Range 23 East,

Colon F. Whittier, at page 799, testified to seepage on Section [506] 6, and adds that there are several between Section 6 and Maricopa. B. K. Lee, page 297, testifies to outcroppings of oil sand on Sections 21, 22 and 26. The seepage on 26 is referred to also by Silas Drouillard, on pages 34, 25, 36 and 42. John Jean, on page 96, refers to asphaltum in the Midway region without specifying locality.

Township 32 South, Range 24 East,

The gas blow-out in Section 11 of the Buena Vista Hills is referred to by Parker Barrett, pages 946-947; by H. P. Dover, 780 and 792. B. K. Lee, page

307, refers to this as the seepage visited by Josiah Owen. On page 800, Colon F. Whittier describes a blow-out caused by oil coming up through a crevice in the formation, which he set on fire and which burned some two weeks. This is given in the transcript as Township 31-24, but should be 32-24. The seepages in the Sunset region have been testified to by several witnesses: John Jean, page 96; F. J. Sarnow, page 212, states that between Sunset and Maricopa there are some seepages extending probably two or three miles from Sunset toward McKittrick. H. A. Blodget, page 608, describes seepages and development about McKittrick in 1888 and 1889. W. E. Youle, page 1009, mentions seepages in a great many places about Sunset. H. A. Blodget, page 609, testifies to a seepage just south of the Standard line in Section 2 of Township 11 North, Range 24 West, San Bernardino Base and Meridian. Exhibit A, being the plat of survey of Township 11 North, Range 23 West, surveyed November 19, 1858, and Exhibit B, of Township 11 North, Range 24 West, approved April 29, 1874, shows several pitch springs. In general, Ira M. Anderson, page 161, states that extending generally between McKittrick and Sunset there are blow-outs, asphalt and oil, and places where you would see what was asphalt with gas coming up through the center. H. A. Blodget, page 610, states that prior to July [507] 1, 1904, there was practically a continuous field from southeast of Sunset to four or five miles northwest of McKittrick,

barring a slip from what would be now Fellows to McKittrick.

Q. By Mr. Mills—Now, Mr. Veatch, you have spoken of an opinion which you formed of the character of the lands in suit and the adjoining lands in the Elk Hills from certain seepages and from certain other physical evidences of adjoining territory, besides the geological formation of the lands themselves and their relation to these seepages. Did you have, at the time you formed that opinion, all of the seepages which you have collected and given reference to in the reporter's transcript at the time you formed that opinion?

A. No; only a portion of them.

Q. Have these additional seepages tended in any way to change your opinion of the oil character of the lands in suit?

A. No. The evidence, without the additions, was to me conclusive, and these would have strengthened it if there had been any doubt.

Q. Referring to the seepage, or gas blow-out, in Section 32 of 30-24, what examination have you made, if any, and with what result?

A. I examined the seepage on two occasions and found a stained sand exposed at intervals for several hundred feet, on the west side of the gulch in which it is situated, and in one or two places on the east side. This sand contains some free sulphur. Tested with chloroform it gives no oil. The sand shows some carbon—particles of carbon—and it is my conclusion that it represents an escape of gas from the oil-bear-

ing zone, the gas carrying some oil with it; that this oil has been deposited in the sand together with sulphur coming from the gas, and that it has been fired—the gas has been lit— [508] and that owing to incomplete combustion a little carbon has been left in some of the sand—which makes it probable to my mind that any one or more persons in the past could have tested that and gotten positive results of oil, if the oil had not burned out. It would probably be, also, a volatile oil, that would evaporate. If there were other earth movements, it would be possible, I think, at some future time, to get a positive test of oil.

Q. You say the oil was probably volatile. What do you mean by that? Do you think the oil in the oil-bearing zone in that vicinity or underlying those lands is more volatile than the oil on the eastern flank of the Temblor Range?

A. Yes; it would be more volatile in the degree that along the outcrop there has been a chance for the escape of gas, or the lighter portions of the oil, which would leave behind the heavier oil. You would thus have heavy oil near the outcrop—asphaltum at the outcrop and heavy oil in a short distance,—which would gradually grow lighter because as you get in the imbed the gases have not escaped. Now, in the Elk Hills there has been no leakage of any consequence. This slight leakage there would represent the most volatile portions of the oil.

Q. Do you know whether or not, from your examination, there is any anticline or anticlinal structure,

in the Elk Hills running through a portion of the lands in controversy, and, if so, state the extent, so far as you have determined?

A. Yes. The Elk Hills themselves are structural hills—and by that I mean that it is an anticlinal fold, in which the present topography shows the essential shape of the fold, and that fold has a few subordinate wrinkles in it, and it is those little wrinkles in the grand uplift or fold which have been referred to as different anticlines. They are anticlinal axes of [509] minor folds. The whole hill itself is a great fold.

Q. Now, you used the words “anticlinal axis” and “anticlinal”. Is there any distinction to be drawn between the two terms?

A. Why, the anticlinal axis refers to the line of the crest, the position on the surface of the exact crest or fold. Now, an anticline refers to the whole feature—not the simple line which represents the crest; and “anticlinal” is of course the adjective which describes the feature which is of the nature of an anticline. And in this case the Elk Hills is not a perfectly simple anticline, that is, there are several little wrinkles on it and it would be an anticlinal hill. Broadly speaking, the anticlinal plunges and that gives an elongated dome shape. It might be described as an elongated dome.

Q. In what direction is the strike of the anticline in the Elk Hills?

A. It is just the same as the strike of the hills themselves, which is northwest and southeast.

Q. Are there any other evidences around this gas blow-out or oil seep described by you in 32, 30-24 in the anticlinal structure?

A. Yes sir.

Q. Please describe it?

A. The blow-out is practically on the crest of the anticline there, that is, the little local fold, and is shown by the dips in the canyon. You go north of the seepages and the dips are to the northeast; as you go up the canyon you get dips to the southwest, in the opposite direction. That anticline there is, at that portion of the hill, the major feature.

Q. Now, where are those dips or slopes of the anticline manifested along the Elk Hills?

A. Well, in the gullies, where the erosion has cut slightly [510] into the strata, giving you edges and a small cross-section. Along the north slope the gullies show the dip to the northeast and on the southern slope the dips, similarly, show the dip to the Southwest.

Q. Would you say, from the evidences which you discovered there in your observations in the Elk Hills, that the anticlinal structure is well defined or not well defined running through the hills from northwest to southeast?

A. It, I would say, is very well defined. There could be no question whatever regarding the anticlinal nature of the hill. The exact location of the axes of some of these minor folds cannot be located, in some places, within several hundred feet, due to the very slight dip; but, so far as any practical oper-

ations are concerned, that is of no consequence at all.

Q. Have you observed any evidence of this anti-cline spoken of by you in Section 14 of 30-22?

A. Yes. There is an anticline that is very plainly visible there on the east side of the little gully through which the railroad passes.

Q. Are there any indications of waste, there, of oil?

A. I have seen none. I saw that anticline from the train. I didn't go over and examine it.

Q. Now, calling your attention to government's Exhibit I, with which you are familiar, having prepared it yourself, showing the state of development of this region before September, 1904, and taking into consideration this development and only that portion of the various seepages testified to by the witnesses in this case, and of which you were cognizant at the time you first formed an opinion of the character of the lands in suit, and laying out of view entirely the seepages and asphaltum reefs testified about by the witnesses Kaerth, Captain Frank Barrett [511] and M. S. Waggy as existing before that date in Township 30 South, Range 23 East, and assuming that no visible oil exposures or outcroppings existed whatever in said township at that date, and taking into consideration the geological structure of the region thereabout, would you, prior to December, 1904, have advised a company employing you to sell those lands—and by that I mean the lands in suit—for their agricultural value, and, if not, why not?

Mr. Lewers—To which we object, on the ground

that the question is a hypothetical question, based upon only a portion of the evidence in the case, and upon the further ground that as such hypothetical question it is incomplete, in that it, first, misstates the evidence in the case, and second, does not include within it all of the evidence concerning the conditions that existed prior to the issuance of the patent in this case. We object to it on the further ground that it is speculative, vague and indefinite and is calling for the conclusion of a witness as to his knowledge and belief formed at a time more than six years after the patent was issued in this case, and that for that reason it is not relevant to the determination of what was known at the time and before the time the patent was issued.

Mr. Mills—I will say, in response to that portion of the objection, that I purposely limited the question to only a portion of the evidence. There are many seeps and other indications of oil. You may answer the question.

A. Certainly not. For the reason of the great oil value of the land. The mineral value is greatly in excess of any agricultural value.

Q. You have heard it testified to in this case that one E. T. Dumble, alleged to be a geologist in the employ of the railroad company defendant in this suit, and the late Josiah [512] Owen, also alleged to be, by testimony introduced here, a geologist in the employ of the defendant railroad company, during times prior to December, 1904, were quite frequently in the vicinity of McKittrick, formerly called As-

phalto, and one, at least, of these gentlemen having made trips into the Elk Hills, would you say, or do you believe, assuming these gentlemen to be competent oil geologists, that at that time, prior to December, 1904, and at that stage of development, they could have helped knowing the oil character of the lands in suit?

A. The geologic structure of the Elk Hills is so very evident—the hill, as explained before, is a structural hill—that anyone a geologist standing at Asphalto would naturally and at once suspect the character of the fold. If that suspicion were verified by examination, as stated in your question, if the geologist had actually been on the ground, he could not have helped but know absolutely the anticlinal nature of the hill and from the development in McKittrick must certainly have regarded it as an oil proposition.

Mr. Lewers—I move that the answer be stricken out as not responsive; vague, general and indefinite.

Q. By Mr. Mills—And if your employer were not the owner of the land in this suit, would you, in 1904, with the then present stage of development, and without any exposure of oil seepage or outcroppings in the lands in suit, have advised the acquisition of these lands at a price in excess of their agricultural value?

A. Certainly.

Q. In your examination this morning, Mr. Veatch, you mentioned the line of seepages along the Temblor Range as fifteen miles and the oil horizon extending seven and a half miles eastward. Are these seepages limited in extent to fifteen miles? [513]

A. The statement of fifteen miles is an error. It is just half the distance. The actual distance is about thirty miles, and the record should be corrected to read thirty miles, on the one hand, in place of fifteen, and fifteen in place of seven and a half.

Q. By Mr. Lewers—Then your horizon would be fifteen miles?

A. Yes.

Q. By Mr. McCormick—How did you come to make that mistake this morning?

A. In my determination of the region at the time of the examination, I laid it off on a map on which the scale is approximately two miles to the inch. I measured it as fifteen inches and seven and a half inches and the note was made in inches and transposed to miles inadvertently.

Q. By Mr. Lewers—Mr. Dumble might have done the same thing, might he not?

A. The matter is shown clearly on the exhibit. The distance of the seepages is shown there, and the matter is one of ratio rather than absolute quantity.

Q. By Mr. Mills—Now, Mr. Veatch, counsel for the defendants other than the Equitable Trust Company, in this case, at page 112 of the record, has stated in his objection to certain testimony that, "It is not a fact that petroleum is a mineral, first within the meaning of the act of Congress granting the land to the railroad that is involved in this suit, and, second, that it is not a mineral within any act of Congress or within any recognized or established meaning." Now, I will ask you whether or not petroleum

is a mineral and whether or not it is generally so regarded.

A. Petroleum certainly is a mineral. The only reason which might exist for questioning this arises from the attempt [514] of some scientists to give to the word a restricted meaning in much the same way that some scientists have attempted to give to the word "rock" an enlarged meaning. Both attempts have led to the same result. According to this enlarged definition of the word "rock," water is a rock, and should a man throw water on another he would, under this definition, be technically said to strike him with a rock. In attempting to give a scientific meaning to the word "mineral," some scientists have defined a mineral as any substance of inorganic origin of definite chemical composition occurring naturally within the earth. If this definition is followed out strictly, it would exclude everything in which organic matter has been a factor in its formation. Many deposits of iron ore will be excluded. A commercial ore is seldom of definite chemical composition and under this definition would, strictly speaking, not be a mineral, although composed of an aggregate of several minerals. Under this definition coal is not a mineral, since it is clearly of organic origin. That Congress had no such restricted definition in mind when it used the word "mineral" is shown by the fact that it found it necessary to expressly grant coal to the railroad, because under this restricted definition coal is not a mineral since coal is an organic article.

Mr. Lewers—I again object that this is not the time to argue the case.

A. (Continuing) I wish to say this is not a legal argument, but purely a scientific statement. Some petroleums are of inorganic origin, and this definition thus leads to the absurdity that in some cases petroleum would be a mineral and in others not. Both coal and oil are generally regarded by geologists to be minerals. No report on the mineral resources of a country is complete without a description of the coal and oil, if there be any, as is evidenced by the national and state [515] survey reports throughout this country and the world. The word “petroleum” is derived from “petros,” a rock, and “oleum,” oil—that is, rock oil—and in the early stages of its development, prior to the passage of the act of 1866, was an oil referred to as mineral oil to distinguish it from vegetable oils, such as olive oil or linseed oil, on the one hand, and animal oil, such as sperm oil on the other.

Mr. Mills—You may take the witness.

Mr. Lewers—I desire a transcript of the testimony of this witness before taking up the cross-examination; so, if you have any other witness to put on, I suggest that the cross-examination be postponed.

Mr. Mills—No; we can't go on any further, then, until you get a transcript.

Mr. Lewers—I desire at this time to have it go into the record that all of the affidavits referred to by Mr. Veatch as having been used as a basis for his forming his opinion I desire to be submitted to me for use during the cross-examination.

Q. By Mr. Mills—At this time I will ask, Mr. Veatch, if you had any talk with any witnesses whatever, yourself, as to oil seepages after you read these affidavits.

A. I did.

Q. Did you talk with all of the witnesses whose affidavits you read, in forming your opinion?

A. Practically so. I certainly testified to enough—Mr. Lewers—Yes; I think you did.

A. (Continuing) I certainly talked with enough of them to warrant the opinion that I have expressed—that is, over the evidence of a sufficient number of seepages to warrant the conclusion. And, in addition, there are a number of published official reports of one kind or another which give information [516] along the same line, which I naturally went over very carefully.

Q. By Mr. Mills—Well, can you state now, Mr. Veatch, whether or not your opinion was formed by talks with witnesses regardless of any statements or affidavits which you previously read?

A. I think that in some cases I didn't talk to the witnesses before I wrote that report, but I talked with enough of them to warrant the opinion expressed.

Q. Before you made the opinion?

A. Yes; that, in connection with the corroboration of their statements by published reports and reports which relate to the field work, prior to January 1st, 1905.

Q. Then, in fact, your report is not based upon affidavits and statements?

A. It is not; that is, it is not essentially based upon the affidavits. I used some of the affidavits, but if the affidavits had not been at hand and I had simply talked with the witnesses that I did talk to and had the published reports referred to—that is, the field work prior to January 1st, 1905—I would have had sufficient data to form an opinion.

Mr. Lewers—I still want those affidavits.

A. (Continuing) I might state that the testimony which I offered this morning was not the report that has been referred to but was my opinion given after hearing all of the witnesses in court and would be based upon much more information than I had at the time that I wrote that report, which was not put in evidence.

Mr. Lewers—Still I want to know what reply will be made as to furnishing me those affidavits.

Mr. Mills—Well, in view of the witnesses's statement, I see no reason for urging the production of the affidavits, because [517] he has stated that his opinion as expressed here in evidence was made on statements made by the witnesses and that the affidavits which he read were in no wise essential to that opinion.

Mr. Lewers—That is the witness's conclusion; but in the light of certain portions of the witness's testimony which I very distinctly recollect, and in the light of certain statements made by the witness near the concluding portion of his direct examination, I

still think that we are entitled to those affidavits for the purpose of cross-examination, as those affidavits certainly formed a portion of the basis for the conclusions reached by the witness under the testimony already introduced. For that reason I insist upon the demand that we be furnished with those affidavits.

On Saturday, May 11th, 1912, at 10 o'clock A. M., the further taking of testimony herein was resumed.

DIRECT EXAMINATION

OF

A. C. VEATCH

resumed,

By Mr. Mills:

Q. Mr. Veatch, on direct examination you were asked this question: "Q—Now, how was your knowledge of seepages obtained? A—It was gained from various public records, the field notes and plats of the surveys in this region, and from the affidavits and statements of persons who have since appeared and testified in this suit." Will you identify those papers I hand you and state whether or not those are the papers referred to by you, and affidavits?

A. They are. They are in addition to the verbal statements made to me. [518]

Mr. Mills—Let the record show that the so-called affidavits referred to by the witness are now tendered to Mr. Lewers.

Mr. Lewers—I have received, at this moment, from Mr. Mills, five papers purporting to be affidavits of Charles A. Brisco, Frank D. Lowe, Bernard K. Lee, Silas G. Drouillard and J. I. Waggy.

Q. Are these the only affidavits which you considered in reaching your conclusions concerning the Elk Hills?

A. They are.

Q. Did you have in your possession, or had you examined, the affidavits of any other persons?

A. Yes. But they related to other matters, not to geologic data nor not the basis of the conclusion on the matter of seepages.

Mr. Lewers—At the conclusion of the direct examination of Mr. Veatch, you stated, Mr. Mills, that you would give me the affidavit of Mr. J. B. Treadwell. I don't find that in the papers which you have handed me, and I would like to have it produced.

Mr. Mills—That affidavit of Mr. Treadwell does not relate to seepages, and at the proper time, if it seems important to my end of the case, I shall certainly produce it.

Mr. Lewers—Have you an affidavit by Mr. J. B. Treadwell?

Mr. Mills—I have a statement from him.

Mr. Lewers—Have you an affidavit?

Mr. Mills—I don't recall just now whether he went under oath at the time that was taken or not.

Mr. Lewers—Then, when you made the statement that you had an affidavit from Mr. Treadwell, it was a statement made unadvisedly?

Mr. Mills—Well, I am not referring now to anything that the special agents may have procured from him. I refer to a [519] statement that he made to me personally.

Mr. Lewers—Then you don't know that he has ever made an affidavit, in other words?

Mr. Mills—Well, I can't say positively at this moment, but my impression is that he did.

Mr. Lewers—Which affidavit was it that you offered to deliver to me on that occasion?

Mr. McCormick—Now, I think, if you will recollect, that the statement of Mr. Mills at the adjournment the other day at the close of Mr. Veatch's direct examination, offering an affidavit of Mr. Treadwell, was more in the nature of a bit of humor or of a joke than anything else. I am sure he so intended it, and I think from your conduct at the time you understood it the same way.

Mr. Lewers—The record does not show, nor did the manner of the offer indicate, that it was intended as a joke.

Mr. McCormick—We were then discussing affidavits that Mr. Veatch had seen and examined which had had more or less effect upon his mind in producing certain testimony that he has testified to here on the stand. It was never Mr. Mills's idea, nor Mr. Veatch's either—I don't think he said anything which would justify you in considering that the Treadwell affidavit had anything to do with Mr. Veatch at all. I distinctly remember that it was, as I say, in the nature of a joke, or of the same character of talk that has pervaded a number of conversations before in this hearing.

Mr. Lewers—Then I take it you have no Treadwell

affidavit that you are willing to deliver to me? Is that correct?

Mr. McCormick—So far as I am concerned, I don't know whether we have a Treadwell affidavit or not; but if we did I would not be willing at the present time to deliver it to you. [520]

Mr. Lewers—Notwithstanding Mr. Mills's statement that he would do so?

Mr. McCormick—I am speaking for myself. Those are my sentiments.

Mr. Mills—I will ask counsel for the Southern Pacific Railroad Company whether he has recently been in conference with the witness J. B. Treadwell, since the last hearing.

Mr. Lewers—Yes. I met him yesterday on the street, and he asked me how we were getting along up here, said he had heard part of the testimony of the first expert offered for the government and that in his opinion this first expert didn't know anything about the Elk Hills. That is the extent of our conversation.

Mr. Mills—You regard that, I suppose, as a very lawyer-like piece of conduct—to testify on curbstone hearsay remark as to the testimony introduced in the case.

Mr. Lewers—Thoroughly warranted by the lawyer-like request or question made by counsel for the government.

CROSS-EXAMINATION
OF

A. C. VEATCH.

By Mr. Lewers:

Q. How old are you, Mr. Veatch?

A. Thirty-three.

Q. And where were you born?

A. Evansville, Indiana.

Q. And where did you receive your education, in a scientific way?

A. Indiana University. Cornell University.

Q. And you were, were you not, a student under Dr. J. C. Branner?

A. Never.

Q. Under whom were you a student of geology at the [521] Indiana University?

A. J. F. Newsome.

Q. Where is J. F. Newsome now?

A. He is engaged in private work. He has a residence at Palo Alto; and I don't know where he is at the present moment.

Q. And he was connected for a number of years with the department of geology at the Stanford University under Dr. Branner, was he not?

A. Yes sir.

Q. And resigned that position to go into private practice in 1908 or 1909, did he not?

A. I don't know as to the date.

Q. But he is now engaged in the private practice as a consulting geologist?

A. So I understand.

Q. Do you know whether he had ever made any examination of the Elk Hills?

A. No; I do not.

Q. And when you went to Cornell, under whom did you study geology?

A. Professor G. B. Harris, Professor A. C. Dill and Professor R. S. Tarr.

Q. And was your course at Cornell a postgraduate course?

A. No; I had never received the degree. My course at Cornell—I was in the geological seminary, and in that respect was taking postgraduate work, supposed to be restricted to postgraduate students. I may say that with reference to my work in Indiana, I did original field work before I went to the Indiana University, and my meeting with Professor Newsome was purely accidental in many ways. I was intending to do some science work under Professor Eigenmann and happened to step into [522] the geologic department and showed Professor Newsome my results in Southern Indiana. That was before I had ever been in the university in geology. And he asked me to take charge of a section in field work. That was my beginning in geology under Professor Newsome.

Q. That is, the charge of the section of students who were doing preliminary or elementary field work?

A. My assistant was a senior in geology in the university.

Q. Now, how long did you continue with that work, or with your work in other respects at the Indiana University?

A. I was on that summer school work, that is, the

Indiana University geological survey, the following fall. And I may say the year preceding that I was teaching physical geology, physics and mathematics in the high school, and I continued teaching that fall and met Professor Newsome again at Indianapolis, at Christmas time, and I read a paper before the Indiana-Academy of Science, and he then offered me work in the laboratory there at the Indiana University which would give me sufficient funds to pay my expenses. I unfortunately did not have the money to go to college. And I then resigned my position in the high school at Rockford, Indiana, and was engaged in the laboratory there that spring. Professor Tarr, at Cornell, wanted some special work done which paid more than the Indiana University, and I thereupon went to Cornell, finding in that way a method to make my way through college. At Cornell, under Professor Tarr, I met Professor Harris and Professor Harris then asked me to go on the Cornell geological survey of the Tertiary. That was in the summer of 1898; and the request coming to him in the fall of 1898 to recommend a man that was competent to take charge of the field work in the Louisiana geological survey, he recommended me. I thereupon became assistant state geologist of Louisiana. [523]

Q. Then how long were you in Cornell in all?

A. At that time I was there three months.

Q. In all, though?

A. Altogether, about two years and a half.

Q. And when did you return to Cornell?

A. I returned to Cornell in 1900.

Q. And what position did you have at Cornell on your return?

A. I was assistant in charge of areal and stratigraphic geology in the summer school of field geology.

Q. What is areal geology?

A. It is the making of maps, showing the surface areas occasioned by formation.

Q. It is not "aerial" then?

A. No; it is not "aerial." Incorrectly stated in the transcript.

Q. And that work in Louisiana prior to your return to Cornell, consisted of what?

A. General examination of the geology of the state and of special areas. There are a number of rather voluminous reports covering that. There is a report of the geological survey of Louisiana for 1899, in which there is a joint paper by Professor Harris and myself on the historical development of the geology of Louisiana and on the general topography of Louisiana. There are detail papers by myself on the Five Islands, which are peculiar uplifts in Southern Louisiana, of the same character in which the oil is found; and in a detailed report on the Freeport area, the northern part of Louisiana, various papers of considerable volume. And the second year's work is represented by another volume which was published in 1902. I may say that on my return to Cornell credit was asked for that [524] original field work, and produced a long faculty wrangle, in which part of the faculty held that a baccalaureate degree meant four years' residence in a college and therefore

this could not be counted on the baccalaureate degree, and the conclusion reached finally was that as soon as I got a baccalaureate degree they would credit me with two and a half years on a doctor's degree, that is, permit me to get a bachelor's degree and doctor's degree at the same time.

Q. Well, did you obtain those degrees?

A. No.

Q. Now, in your work during those two years in Louisiana, did you have any field work in connection with oil deposits?

A. No. There are some deposits of oil on some of those Five Islands in Southern Louisiana.

Q. Did you examine them?

A. Yes.

Q. And were they being developed?

A. No.

Q. No practical drilling operations going on?

A. No. There was drilling over near Calcasieu, near the sulphur mine, Sulphur City, which was yielding some oil. I made an examination there.

Q. Well, did you make extensive examination or detailed examination?

A. No; not at Sulphur City. I did at Belle Isle. That is one of the Five Islands.

Q. That is the place, though, where no development had taken place?

A. No; none.

Q. Has any taken place since?

A. There has been drilling; yes. [525]

Q. Any oil found?

A. No; not in commercial quantities.

Q. And you came to the conclusion that it could not be found in commercial quantities there, did you?

A. Yes. The dome there is lifted to the surface and the top is eroded, and you have, as at Beaumont, a central core of salt over which there is a mass of more or less porous gypsum, which contains the oil, and at Belle Isle the uplift is such that that porous cap is eroded and you get a few oil springs along the side, so that the oil has escaped so that there is no large quantity of oil there. At Beaumont it is deeply buried and the top of the dome is not broken.

Q. That is, the oil formation that you found in Louisiana was due to intrusions of salt dikes or dips, was it not?

A. Was due to them?

Q. That is, the formation itself.

A. That is, the deformation there is due to the salt.

Q. And the same thing was true in Texas, was it not?

A. It is, at Beaumont.

Q. Have you any knowledge of any such condition in the formations in California?

A. No.

Q. In what formations, as to their geological period, does the oil occur in Louisiana?

A. It ranges from cretaceous to relatively recent.

Q. About how recent?

A. Why, of the Pliocene and Pleistocene.

Q. Well, do you mean that you find the forma-

tions from which oil is derived as late as the Pleistocene in Louisiana?

A. Find the oil contained in it.

Q. I am not referring to the formations which serve as an [526] oil reservoir, but to the oil-producing formations, the derivative formations.

A. Well, I don't know what is the oil-producing formations in Louisiana and Texas. I wish I did. I only know about the oil-containing reservoirs there. What the source of that oil is I don't know.

Q. It is generally believed, is it not, both in Louisiana and Texas, that the oil-producing formation, derivative formation, is very much older than the oil derivative formations in California?

A. Not very much older. They are, considering the whole geologic time, very close together.

Q. Well, is it not generally believed that they belong to the cretaceous period?

A. Yes, I believe that the source is from the cretaceous.

Q. While those in California belong to the later periods in the Tertiary, do they not?

A. It is generally so considered. But the matter of the age of the source of the oil has no bearing on the economic development of an oil property.

Q. That is your point?

A. Yes. If you take a region, it does not make any difference whether your oil is coming from a cretaceous horizon or a Tertiary horizon; if you have a porous bed which contains oil and you can determine the structural position of that porous bed and there is

evidence that that porous bed contains oil, the age of that bed does not affect the question of whether you get oil or not.

Q. Does it affect the question of how much oil you will get?

A. Not necessarily.

Q. Not necessarily; but it may? [527]

A. It may. The conditions in California are peculiarly favorable. That is, regarding the diatomaceous shale as the source of the oil, you can demonstrate the matter very fully and very conclusively.

Q. Well, I shall come to the California conditions in detail later.

A. Let me explain a moment. You take this condition, which happened in some South American work. A man is placed in a region, and the age of the rocks is of scientific interest. But where you find a shale, as I found there, you don't care what the age of that shale is; it does not make any difference for this particular matter of determination of the oil horizon. And you find below that shale a porous recent formation which contains oil in quantities, and you find that porous recent formation in a great many places; you determine the structure and you find that these occur in certain relation to the anticlines, and it shows very fully that those anticlines are excellent oil territory. Now, this happens to be lower cretaceous, but that does not make any difference; that was simply a scientific determination which was of scientific interest. It was of no economic value in that particular development.

Q. Then, in your opinion, so far as determining the occurrence of oil and the quantity of oil that can be developed, it makes no difference whether it is in an old formation or a comparatively recent one? Is that correct?

A. That could be broadly stated in that way. Oil occurs in practically all formations, all periods, except the very oldest—certainly a great deal older than anything in California. It is a matter of physical conditions.

Q. After you had completed your work in Louisiana and returned to Cornell, what was the next occupation that you [528] followed?

A. I went to Texas.

Q. When?

A. In 1901.

Q. And what position did you hold in Texas?

A. I was geologist with the Houston Oil Company.

Q. For how long a period?

A. Oh, eight or nine months. Less than a year.

Q. During that period what were you doing?

A. I was making investigations of the structure of the region—general region of eastern Texas and western Louisiana.

Q. What amount of territory did you cover in your examination?

A. Well, it covered different places in the area extending over the eastern quarter of Texas and occasional trips into western Louisiana. I was employed there specially because of my detailed knowl-

edge of the stratigraphy in Louisiana. It was a matter of stratigraphic geology. The training of a person in stratigraphic lines bears on his competency to determine the oil formations.

Q. I was not asking as to your competency; I was asking what you did in Texas, what territory you examined in Texas.

A. It was various portions of the eastern quarter of Texas.

Q. For what purpose?

A. For the determination of the oil value of the land, for the special information of my immediate chief there as to the geological relations, formations, in there.

Q. Did you have charge, in any way, during that period, of any actual oil development?

A. No.

Q. Did you locate any wells?

A. No. [529]

Q. And did you have anything to do with the sinking of any wells?

A. No.

Q. Did you examine well logs?

A. Yes; a great many of them.

Q. For the purpose of determining the strata?

A. Yes.

Q. But you were not connected with the practical end or operating end of the oil business during that period?

A. No.

Q. Your work, then, was a general geological

investigation of conditions in various portions of Texas, was it?

A. Yes, with detailed investigations in certain localities.

Q. And did you, during those investigations or as the result of them, denote any territory that in your opinion should be developed?

A. Yes.

Q. In how many places did you indicate what you regarded as profitable oil territory?

A. I did in only one.

Q. And where was that?

A. That was over in Louisiana.

Q. You located none, then, in Texas?

A. No. There were a great many wells there in Texas. I advised the drilling of wells near Saratoga.

Q. In Texas?

A. Yes.

Q. Were those wells drilled?

A. I think so.

Q. Do you know?

A. I do not.

Q. Do you know whether they were profitable or not? [530]

A. I have heard they were.

Q. But you took no part in it?

A. No. I left before the work was completed.

Q. Did you advise as to the depth which they should be drilled?

A. No. That is not possible in Texas because of the geologic conditions. In certain regions your

geologic conditions are such that your geologist cannot form an idea.

Q. So, in Texas, where your examinations were made, it was impossible to determine the depth to which the well should go, was it?

A. Yes sir.

Q. What was the reason for that in that particular place?

A. The reason for that is that the sub-structure of the coastal plain of Louisiana and Texas is very irregular and it is masked by a series of very recent deposits which entirely masks the underlying geology. In that respect it differs entirely from the California conditions.

Q. That is, in California there are no overlying deposits which mask the underlying formations?

A. Not in the way they do in Louisiana and Texas.

Q. In not quite the same way, but there are overlying deposits in California which mask the underlying formations, are there not?

A. Not in the way to influence your judgment, that is, to make it impossible to reach a definite conclusion.

Q. That is, you say that in California, notwithstanding these overlying deposits which occur in many places, you can still reach a definite conclusion as to the underlying formations?

A. Yes. I think that it is definite enough to warrant drilling.

Q. Well, are you using that term "definite" in its scientific [531] sense or as meaning something that you can guess at?

A. I mean an approximation, reasonable approximation which is the basis of commercial development.

Q. That is, a "reasonable approximation"?

A. Yes.

Q. Then you don't mean that you can definitely locate and determine the position or the condition of the underlying formations in California?

A. You can in some cases.

Q. "In some cases"?

A. Yes sir.

Q. Where they are exposed?

A. Yes.

Q. Or where wells have been sunk through it?

A. It is your geologic exposures, and I have never seen a region in which the geologic exposures are as complete and satisfactory in a great many ways as in these California oil fields.

Q. Well, we will come to that, and find out how much you have seen of that. And that was the extent of your practical experience in Texas and Louisiana?

A. Yes.

Q. Then, after that where did you go?

A. I was at Cornell for a short period of time, assisting in the preparation of a report on a portion of Louisiana, and then I returned to Louisiana as Professor of Geology in the state university.

Q. And how long did you continue there?

A. I was there about three or four months.

Q. And resigned?

A. Yes.

Q. And where did you go then? [532]

A. I was working for the United States Geological Survey in northern Louisiana and southern Arkansas.

Q. In what capacity?

A. As a geologist investigating underground water reservoirs. And at that time I located the Caddo oil territory.

Q. Where?

A. Northwestern Louisiana.

Q. And that was in what year?

A. 1902.

Q. And you at that time had some practical experience, did you, in the sinking of wells?

A. No purely geologic. It was my deduction regarding the presence of oil there.

Q. Your location of the oil area at the Caddo field, then, was purely a geologic matter based on structure?

A. In that region in northern Louisiana the structure is much better exposed than it is in southern Louisiana; and they have in there analogous domes, structurally, to those which occur in southern Louisiana, where the surface exposures are such that you can work out the structure. It is not buried by a great mass of deposits, and I found there a case of a dome of which the top had been eroded and represented a place where they could drill for oil or gas. There are two or three domes in that region where the top is entirely gone and the oil has leaked and dissipated, and those I do not consider favorable sites.

Q. And were you the pioneer in that district?

A. I sank no wells there. I recommended the sinking of them.

Q. To whom did you recommend it?

A. To Mr. Glassell.

Q. And did he sink wells there?

A. Yes. [533]

Q. And they were profitable?

A. Yes.

Q. And no wells had been sunk in that vicinity before that time?

A. None at all. That was not thought of as an oil territory.

Q. Until you came in there and saw it?

A. So far as I know.

Q. Well, were not these features of the landscape, the surface indications, and so on, plainly visible for miles?

A. No. The geology there requires very careful work. It differs in that respect very greatly, I think, from your California conditions.

Q. And it was not obvious to anyone except a highly trained specialist in geology?

A. I think so.

Q. And that is the reason why you felt that you were able to discover it and that accounts for your success in that particular instance, is it?

A. Yes.

Q. The dome-like structure that you have referred to was not visible from the surface?

A. Well, it is at the surface, but the exposures are

such that it requires very detailed, careful work to determine it. That is, I mean it was not plainly visible to a man ordinarily walking over it. It would require a geologist—not a casual view of it, but very careful detailed work. It does not stand out, stare you in the face, as the geology does in a great part of the western United States.

Q. And after you had made a careful and detailed examination of the surface, you were able to say in your own mind, were you, that you knew absolutely that underneath that dome was oil [534] in paying quantities?

A. No; not at all.

Q. Then what conclusion did you reach?

A. I reached the conclusion that that was to me valuable oil land, that is, it had a commercial value as oil property.

Q. What do you mean by that?

A. Because of the very great probability of oil occurring there. It is not possible to say certainly that there is oil there, that is, there is oil in commercial quantities. If there is oil in this region, it certainly occurs in that locality, and that is a place where I would certainly advise drilling and where a man would be amply justified in spending money in drilling a well.

Q. That is, you came to the conclusion that if there was oil in that territory, that was the place where it would be found?

A. Yes; and I felt that there probably was oil.

Q. Still, you recognized, didn't you, that the "if" was necessary?

A. Yes. There were no seepages there.

Q. And you would, from the surface indications which you found there and as the result of your careful examination, feel justified in advising an oil operator to prospect that territory?

A. Yes.

Q. In the hope of developing an oil well?

A. Yes.

Q. That is, you thought it was a good prospecting ground, didn't you?

A. Yes; very excellent ground.

Q. And you would not have been greatly surprised, would you, if he had failed to find oil in paying quantities?

A. Yes. I would have been rather surprised if he hadn't got [535] oil or gas.

Q. But I mean in paying quantities.

A. I can't say "in paying quantities."

Q. That is, the failure to get it in paying quantities would not have surprised you, as a scientific proposition?

A. No; not from the evidence that existed there.

Q. That is, you realized, in advising the prospecting of that particular territory, that there was a chance that oil would be obtained?

A. Yes.

Q. And you also realized, did you not, that even if it were obtained, it might not be in sufficient quantities to warrant the expense of sinking for it?

A. Yes; there is a chance of failure in all business operations.

Q. And in mining operations of any kind that chance of failure is perhaps greater than it is in many other forms of business enterprise, is it not?

A. Well, with certain conditions in coal and oil I don't think they are any greater.

Q. You think that with coal and oil it is practically a cinch, is it?

A. That is, it offers a greater chance of return than any metal mining, and the danger of failure there is no greater than in a great many business operations.

Q. That is, there are many business operations which are essentially, in their nature, gambles?

A. No—that is, unless you include everything.

Q. Well, I do include everything.

A. Now, to illustrate, when I was in the high school I was once employed by a large produce house as stenographer and bookkeeper, and what not, or assistant, and I frequently remember [536] of the company buying potatoes and the price of potatoes went down and they lost money on those potatoes. When they bought those potatoes they must reasonably have felt sure they were going to make money on them; but there was a reasonable business risk, it was a good business prospect to buy those potatoes.

Q. Your employers were the kind that would not take a chance but were betting on a sure thing?

A. No; it was a commercial proposition. You needed potatoes and bought potatoes according to

your very best information, to the best advantage in the market. If you lost your guess on that you lost on the sale of the potatoes.

Q. Did you ever know of your employers, during that period, endeavoring to buy potatoes at some place and discovering there were not any there?

A. Endeavoring to buy potatoes—

Q. —at some particular place and discovering that there were no potatoes there?

A. I don't know that I have.

Q. Would not that be more nearly a parallel with your oil venture?

A. No; I don't think it would. It is a business risk.

Q. When they bought those potatoes, they knew there were potatoes, didn't they?

A. Yes; and when a man takes, on the advice of a competent geologist, oil land, he has a reasonable prospect of success.

Q. And a fair chance of failure?

A. As he does with the potatoes.

Q. Just as, if he bought the crop of potatoes to be raised upon a particular piece of ground two years hence, he would have a reasonable prospect of getting his potatoes and a fair chance of their never being planted?

A. Yes. There brings in an important element, of the com[537]petency of the man who plants the potato crop, in which I think you will find another parallel.

Q. And in neither case would it be a certainty?

A. No; no. A man can secure another to get potato land, but he can't guarantee to the man who buys it that he will get a good crop of potatoes off of it. That is, he cannot if he is an honest man.

Q. Nor can he guarantee that there will be a valuable crop of potatoes on that land the next year?

A. No; but it is a good business proposition to buy it.

Q. In other words, it is good business to take a chance?

A. You take a chance in any business, practically.

Q. Now, did you locate any other oil property in either Louisiana or Texas after you were Professor of Geology of Louisiana?

A. No.

Q. Then your next experience, in the practical way, was in South America, was it?

A. All my work on the geological survey was in stratigraphic geology, and that is the essence of the determination from the geologic standpoint of the matter of oil.

Q. But I am asking you where your next practical experience where you were hunting for oil for somebody was.

A. If you will pardon me a moment, that work was primarily in underground water.

Q. I am asking for oil.

A. Yes; I am coming to that. In coal and in oil in Wyoming.

Q. Were you employed by any individual during your Wyoming work?

A. Oh, no; I was in the employ of the government.

Q. But the question is, where was your next practical work in the oil fields as a representative of any person interested in [538] the development?

A. It was necessarily after I left the Geological Survey, because I could not—

Q. Well, when was it and where was it?

A. In Trinidad and Venezuela.

Q. In connection with oil?

A. Yes.

Q. And during how long a period were you there?

A. About a year.

Q. And you were employed by whom?

A. By the General Asphalt Company.

Q. And did you, during that period, locate any wells?

A. Yes.

Q. And did you have any experience with the practical drilling of those wells?

A. No.

Q. That was in charge of other persons?

A. Yes.

Q. And what depth were those wells?

A. Those were all under fifteen hundred feet.

Q. And those were successful?

A. No; not altogether.

Q. Why not?

A. In one case the drillers reported no oil at all, and the oil commenced to flow, subsequently, between the ten and twelve inch casing at the rate of about two thousand barrels per day but it choked in there

from sand. There was a case in which the driller had passed the sand entirely. That well has never been finished to production, so far as I know but that is a mechanical feature which I don't pretend to know anything about.

Q. And that indicated the discovery of oil at what depth?

A. That was down about seven hundred feet.
[539]

Q. They had gone by it?

A. Yes.

Q. Now, how about the other wells?

A. The other wells, they struck a large oil sand and succeeded in flooding the well with water from above, flooding the oil sand. It is a whole series of bad mechanical features of well drilling.

Q. Still, that could be corrected couldn't it?

A. That I don't know.

Q. It could have been prevented, could it not?

A. I think so.

Q. Well, was there a sufficient test to determine whether that oil sand they struck was productive?

A. Yes.

Q. In large quantities?

A. That was the opinion of the drillers, I mean.

Q. How deep was it?

A. It was about eight hundred feet.

Q. And the water came in and flooded that entire bed of oil sand, did it?

A. No; I don't believe that it did.

Q. Well, what did the water do?

A. It flooded in that well so that you had an emulsion in that well.

Q. Well, I mean the bed exposed in that well was flooded, was it?

A. Yes.

Q. And the well was abandoned, was it?

A. No; they were working on it the last I knew.

Q. That accounts for two of those wells. Were there any really successful wells?

A. No. [540]

Q. What was the matter with the rest of them?

A. All mechanical difficulties with the sand.

Q. With all the rest of them?

A. Yes.

Q. Now, had you advised the persons who employed you that these dangers would be likely to be met with?

A. I advised them not to use a rotary, which was used in a number of cases.

Q. And did you advise them of the danger of flooding?

A. Yes.

Q. And they disregarded your advice?

A. That is a matter purely with the driller. The man who has charge of the actual drilling may be given all the directions possible, and yet that don't control absolutely his operations.

Q. Well, how many of those wells were flooded?

A. That one I spoke of was flooded.

Q. Is that the only one?

A. Yes.

Q. How many wells were there in all?

A. I advised regarding the sinking of four or five wells.

Q. And they did start the four or five wells?

A. Yes.

Q. Now, one of them went too deep, one was flooded. What became of the other three?

A. Two of them got very large supplies of gas, in commercial quantities.

Q. But not oil?

A. Not oil.

Q. Now, how about the other one?

A. And the other one produced for four or five months and then the well choked with the sand. That is a matter of [541] mechanical difficulties that I think can be overcome.

Q. Was the gas a matter of mechanical difficulty?

A. No.

Q. How deep were the gas wells?

A. They got the gas at about six or seven hundred feet.

Q. Did they make any effort to go beyond?

A. They were when I left. I think there is oil below them.

Q. How deep did you advise them to go eventually?

A. I advised them not to go any deeper than 1500 feet in that territory.

Q. Why did you give them that advice?

A. Because of the geologic structure of the region. There is a series of irregular oil sands there

which occur through a whole series of beds about 1500 feet thick and when you reach the bottom of that series I thought at the place they were drilling it was not advisable to go deeper. There are some lower oil sands there which are not so persistent.

Q. How do you know the depth of that formation that you have referred to?

A. From calculation of the surface outcroppings.

Q. There were no wells there at all?

A. No.

Q. In the vicinity?

A. No well which was a factor. There was one well there which was about 1200 feet.

Q. Was that producing?

A. That was producing.

Q. And did you have a log of that well?

A. None that was reliable.

Q. You had a log of it?

A. Yes; I had a log of it. [542]

Q. And you used that partially as a basis of your determination, did you not?

A. No.

Q. Why not?

A. Because of the entire inaccuracy of the log so far as I could determine. It was not a good log. And the exposures in the surrounding country were such that you could calculate your thickness there beyond any doubt at all. With a detailed survey there of the whole area the thickness was calculated from three or four different directions by the dip of the rock and all those calculations came within 50 or 60 feet of

each other, which is, I think, definite. To have a 1500-foot strata and your thickness be within 50 feet of that I would call that an accurate determination.

Q. And when you went there there was no oil discovery in that vicinity?

A. There was one well.

Q. And that was producing?

A. Yes.

Q. So that you had the factor of the operation of the drill determined, did you not?

A. Of that well.

Q. That is to say, the well was there and that factor was determined?

A. Yes, the well was there but without that well we could reach the same conclusion.

Q. Well, I am not interested in your conjecture as to what conclusion you would have reached; I am asking you for the data that you had at hand.

A. There is at that place one of the largest seepages in the world.

Q. Was this anywhere in the vicinity of the asphalt seepages? [543]

A. Yes; right near it, right at it.

Q. Now, in that connection, is there any coal there?

A. No, not in that vicinity.

Q. Is there any coal near the Trinidad asphalt?

A. That is the asphalt I am talking of.

Q. There is no coal in that vicinity, you say?

A. No. There is a little impure lignite in one or two places.

Q. Is there not a fair quality of bituminous coal there?

A. No.

Q. Not anywhere in the vicinity?

A. No.

Q. Is it not a fact that near the Trinidad Asphalt Lake, commonly called by that name—

A. Yes.

Q. —there is a deposit of a fair grade of bituminous coal—

A. No; there is not.

Q. Just a moment. —running into the same formation, and practically into the asphalt itself, giving every indication of being continuous with the asphalt?

A. No.

Q. You are quite positive of that?

A. Yes; absolutely. I made the most detailed investigation of that region that has been made. I know absolutely what is there. There is, in one little gully about three miles from the lake, a thin layer of very impure lignite two or three feet thick. It is really simply a black clay. There is more clay and sand in it than any carbonaceous matter. Now, that little deposit plays out within half a mile, and the same horizon, along the coast, is shown by very little stringers. There is nothing there more than three or four feet of bituminous clay. It could not [544] in any place be called a lignite, and that is a far cry from bituminous coal.

Q. Are you acquainted with an English writer,

a geologist in the oil fields, by the name of A. Bebe Thompson?

A. I have never met him. I know some of his works.

Q. He has made some investigation, has he not, of the Trinidad asphalt depositions?

A. I understand so. He has made some detailed investigations down the coast a little way from that.

Q. When you left Venezuela where did you go?

A. I went to Washington.

Q. And resumed your connection with the Government Geological Department?

A. No.

Q. Were you connected with that while you were in Trinidad?

A. I was on the per diem roll that is, I asked to be relieved and it was suggested that inasmuch as my private work was not in the United States I be put on the per diem roll, that that would not conflict with the regulations, that is, employment whenever employed; and when I returned that last connection was severed.

Q. What do you mean by the "per diem roll"?

A. On the survey there are what are known as annual appointments, that is, appointments which yield a yearly salary. Then there are per diem appointments, which maintain your civil service status without actual employment by the government; your compensation is stated as so much per day when actually employed. Now, you can hold such an appointment as that for years and years and never do

a lick of work for the government. It simply maintains your civil service status.

Q. A very convenient arrangement to allow private employment, is it not? [545]

A. Outside of this country. It does not allow it in this country. It was formerly used, as a great many of the per diem appointees did private work in this country up until two or three years ago, that is, up until the time of the present Director of the Survey, and he held that that was in violation of the spirit of the act creating the Geological Survey, which practically prohibits private work in the United States, and he called upon all those per diem people to either declare that they would not do private work in the United States or to resign, and the great majority of them resigned.

Q. Now, it was before you went to South America that you made your examination for the government of certain oil lands in Wyoming, was it not?

A. Yes.

Q. And you have embodied the results of that examination in what is known as Professional Paper No. 56, have you not?

A. Yes.

Q. Now, during that examination, did you determine the location of any wells?

A. No.

Q. Did you predict the discovery of oil in any given areas?

A. I said I thought a large area would eventually prove to be oil-bearing in small quantities. The con-

ditions there are such that you will get only small wells. The oil accumulates in small sandstone lenses in the shale which produces it and it is a matter of hitting those lenses and when you do hit them you will get small wells. Now, that territory, of that character, which is not a particularly good oil proposition, extends for a great many miles through that country and is evidenced by a number of seepages. That belt is 200 miles long, probably, and I expect to see that country developed some day to an extensive field.

Q. But so far it has not proved a productive field? [546]

A. There is a small production there. The disadvantage of operating at that point is that it lies in the center of the continent, it is dependent entirely upon the good graces of the Union Pacific and the Southern Pacific to get to the coast; and the cost of shipping, cost of transportation, is such that it is not an attractive field in any way.

Q. There is no immediate market for the oil there?

A. No, that is a sparsely settled region. There has a small refinery been erected there and they are producing some oil, after long and painful negotiations, I am informed, with the railroad.

Q. In fact, you feel that the attitude of the railroad in connection with that oil country in Wyoming has been entirely unfair?

A. No, not entirely so, that is, the distance is very great and the cost of hauling would be very great, so

that on the point of the lowered cost of charge it is fair, but on the point that they can ship from New York to San Francisco by rail cheaper than from Evanston, Wyoming, by rail is unfair.

Q. And you have also the full conviction that the railroad, the Union Pacific in particular, was unfair to the early locators in there on that oil territory?

A. No; I only know of one case, the case of one section, at Spring Valley, in which there was both coal and oil. Oil was discovered on the land before the land was patented, and the question then, since coal was given to the railroad, was to me simply one of relative worth—whether it was worth more for coal or for oil—and I think that particular tract is worth more for coal than it is for oil.

Q. Did you think so at the time?

A. Yes.

Q. There was a contest, was there not?

A. Yes. [547]

Q. In which you were interested to determine—

A. No; that contest occurred—I knew nothing about it—I read the record of the contest after the contest was over.

Q. And did it not occur to you that the failure to develop the oil territory in portions of Wyoming was due to the discrimination of the railroad in making it expensive to bring in supplies to the oil drillers?

A. Yes, that was the common report in there, and there seemed to me, from what I could learn at that time, to be something in it. I didn't go into it exhaustively.

Q. You merely took it as hearsay?

A. That was the statement of the people shipping in.

Q. And after that contest was settled you were informed that the rates improved, were you?

A. Yes.

Q. But you didn't know anything about it?

A. No; I know nothing about it.

Q. And yet you thought that of sufficient importance to incorporate in your Professional Paper No. 56 in the form of an innuendo against the Union Pacific, did you not?

A. I would not call it so. I don't remember just the statement in there. It has been some years since that was written. But I wrote exactly what I thought.

Q. And you had no feeling against the railroad company in writing what you thought upon that occasion?

A. Why, I would have no reason to have feeling against the railroad company there. They helped me in a great many ways.

Q. Then you do have no feeling against the railroad company?

A. No. I stated that merely as what seemed to me to be a fair statement.

Q. And did you at that time consider that in making an official scientific report it was proper to include therein purely [548] hearsay matters of that kind that you had not verified and did not know were true?

A. I stated that as the report, and I think it is due to anyone who is going in there to invest in that oil field—and supposedly this report would assist in the development of that region or there would be no reason for preparing it—that they should be forewarned of that condition and to investigate it. If it was not true they could go in; if it was true I should say they should keep out. But a man who reads that report, without knowing anything about the region should carefully investigate that point before he starts drilling in that region.

Q. Why didn't you say in your report that it was merely a rumor that deserved investigation instead of stating it as a fact?

A. Now, how is that stated? Have you the exact statement?

Q. I haven't it here. I would like to have you look that up. Have you that paper here?

A. Yes; I have the paper here.

Q. No. 56?

A. Yes.

Q. Kindly hand it to me. (Witness hands paper to counsel) That is the one.

A. The statement is this: "The effect of this order was, on the one hand, to stimulate prospectors to attempt to develop this field, and on the other, it is claimed, to make the Union Pacific Railroad Company hinder the development in such ways as it might, being the only line of transportation in this region. Certain cases affecting sec. 23, T. 15 N., R. 118 W., and sec. 33, T. 14 N., R. 119 W., were heard

before a special examiner in the district land office August 23 and 25, 1904, and decision was rendered that these tracts were not "known mineral lands" and that patent should be issued to the Union Pacific Railway in accordance [549] with the terms of its land grant. All the Union Pacific lands are now patented, and with the termination of this land contest it is stated that the railroad has offered freight facilities which will materially aid in the development of the field." I think that is an entirely fair statement.

Q. Now, what was this order that was referred to in that?

Mr. McCormick—I suggest, for the purpose of the record, that you describe the pamphlet from which you are reading, and the pages.

A. The extract just read is from page 142 of Professional Paper 56, published by the United States Geological Survey. Now, on page 141 is this statement: "In August, 1900, the Union Pacific Railroad Company began a water well at Spring Valley, Wyo., and on October 14, 1900, at a depth between 491 and 493 feet, struck a sand containing oil of very high grade. Oil of a similar high grade was struck again in December between 573 and 581 feet, and the following May between 1,148 and 1,170 feet.

Intense excitement followed this find, which appears to have lost nothing in magnitude as the news spread. The whole country was soon staked out with petroleum claims under the placer mining laws. The greater part of these claims were purely speculative,

the claimants generally having neither the intention nor ability to develop them. The lands staked were of two types—unoccupied Government land and unpatented odd sections within the limit of the grant made to aid in the construction of the Union Pacific Railroad. This grant, embodied in the acts of July 1, 1862 (12 Stat. L., 489), and July 2, 1864 (13 Stat. L., 356), gave the Union Pacific all the odd-numbered sections of the public lands within certain prescribed limits; but mineral lands other than coal and iron were expressly excepted from its operations. [550]

The section on which the Spring Valley well was drilled happened to be an unpatented odd section, and it was therefore located by several claimants, who assumed that the oil discovered in the Union Pacific well satisfied the law in respect to the discovery required for each locator. The Union Pacific Coal Company had opened a large coal mine on this section and opposed this view of the matter, placing guards about the section to prevent others from prospecting on the land''. Now, as to this region in general, the Land Office took the very important step of removing from entry or patent, except under the mining laws, all Government land in certain townships, and refused to issue to the Union Pacific Railroad patents for the unpatented odd sections within the railroad grant within the limits of this reservation until after December 1, 1903, when the issuance of patents was to be determined by the 'then known character of the land.' And that is the order referred to.

Mr. Mills—Now, I object to any further cross-examination along this line as unproductive of any results tending to shed light upon any of the issues in the case.

Q. By Mr. Lewers—And it was your opinion, at that time, from your investigation, that during the period prior to the time when this restriction was to be removed under the order made by the government, the railroad prevented the development of that property?

A. Why, I think that—That was the statement commonly made.

Q. And that is why you made that statement which you have read into the record?

A. I stated that it was so stated—It is not a positive statement of mine—and that rumor had gone out, that they had prevented it; and it was perfectly fair to say that. It is now stated that they would give better rates, which would encourage the development. I think it is fair—on the one hand, when [551] they have lands to acquire, that they would prevent development, but after the acquisition of those lands they would want the freight.

Q. And that was solely your reason for making the statement?

A. I have explained the reason I made it.

Q. And it was not for the purpose of casting an innuendo to the effect that that land was obtained by fraud?

A. No; because that particular land I thought was more valuable for coal. There were other lands

they acquired in there which I think are more valuable for oil than for the coal; and I think it is so recognized by some of the railroad people. I have very good reason to believe so.

Q. But were those lands which you predicted to be very valuable oil lands during your investigation in Wyoming?

A. Was—

Q. Which you have now referred to?

A. Those lands lay in the same belt and were patented before my report or field work.

Q. Were they lands which you examined as to their oil possibilities?

A. Yes.

Q. And did you predict that they would develop oil in paying quantities?

A. No.

Q. How long were you in Wyoming engaged in the examination of oil territory?

A. Three or four months in 1905.

Q. Devoted to the oil work?

A. The report, which involves that oil matter.

Q. That is, it was devoted to the entire examination?

A. Yes, it is necessary to make the entire examination to [552] arrive at the conclusions relative to the oil.

Q. The greater portion of that report is directed to coal, is it not?

A. Yes.

Q. Now, since your visit to South America in a

private capacity, you were connected with the government Geological survey up to what time?

A. I did no work for the Geological Survey until after I went to Venezuela.

Q. That is what I say. Since that time.

A. I have done no work for the Survey at all.

Q. And what has been your employment for the government since that time?

A. The only employment I have had with the government has been with the Department of Justice in connection with this suit.

Q. When were you employed by the Department of Justice?

A. On January 16th.

Q. Of 1912?

A. Yes.

Q. And how long, probably, after your return from Venezuela?

A. Why, weeks or months. I don't remember exactly.

Q. Well, in the interim were you engaged in the examination of oil land anywhere?

A. No.

Q. Now, you were employed by the Department of Justice in this case as a result of your connection with the case of United States against Diamond Coke and Coal Company, were you not?

Mr. McCormick—Objected to as calling for the conclusion of the witness. [553]

A. I don't know as to that.

Q. By Mr. Lewers—You were so informed, were you not?

A. No.

Q. Where were you living at the time when you were employed in this case?

A. At Washington city.

Q. Did you there maintain an office as a consulting geologist?

A. Yes.

Q. And you were sent from there and reached Los Angeles or California when?

Whereupon the further taking of testimony herein was adjourned until Monday, May 13th, 1912, at 10 o'clock, A. M., at the same place.

On Monday, May 13, 1912, at 10 o'clock A. M., the further taking of testimony herein was resumed pursuant to the adjournment.

(The last question asked Saturday, May 11, 1912, before the adjournment, was read by the reporter.)

A. In the latter part of January.

Q. By Mr. Lewers—1912?

A. Yes.

Q. Now, Mr. Veatch, by whom were you employed in Washington to come to California in connection with this case?

A. By the Attorney-General.

Q. Personally?

A. No. I had a letter from him.

Q. And have you that letter?

A. No. [554]

Q. Were the terms of your employment and your instructions all embraced in written form?

A. Yes. I should state so, in a general way.

Q. Did you have any oral instructions as to what you were to do when you reached California?

A. Except that the instructions were general, that I would be under the orders of Mr. Mills.

Q. For what purpose? Did it state?

Mr. Mills—The question is objected to as wholly irrelevant to any of the issues in this case.

A. For the purpose of investigating these lands and advising him regarding scientific matters.

Q. By Mr. Lewers—And anything else?

A. No not that I know of.

Q. And when you reached California to what portion of California did you first come?

A. To Los Angeles.

Q. And you there met Mr. Mills, did you?

A. Yes.

Q. How long were you in Los Angeles before you went to the Elk Hills?

A. Several days.

Q. And during that period that you were in Los Angeles did you make any examination of any affidavits that had been collected in connection with this action?

A. Yes.

Q. How many?

A. I do not remember the number.

Q. Well, as near as you can state, how many?

A. There were probably eight or ten or something of that sort.

Q. Then there were more affidavits than were submitted [555] to me?

A. Yes.

Mr. Mills—The witness stated that on cross-examination Saturday.

Mr. Lewers—I am aware of that. I want to get it beyond any question.

A. And in addition to looking over these affidavits, what other preparation did you make for your trip to the Elk Hills?

A. I looked over a number of reports relating to the field work.

Q. What sort of reports? Made by whom?

A. There was a report by Frank M. Anderson, who was geologist for the Southern Pacific Company, relating to the field work prior to January 1st, 1905, discussing the general character there and giving me some idea of the nature of the work which had been done in that region by the Southern Pacific Company.

Q. What else?

A. The report of Watts—the state report—in 1900.

Q. What else?

A. And I had, of course, Arnold's report, which I had seen before.

Q. You mean Bulletin No. 406?

A. Yes.

Q. Anything else?

A. That is all I recall.

Q. Were there any other reports that you examined? You say that is all that you can recall. Were there any others?

A. You mean at Los Angeles or at any time prior to my going out to the Elk Hills?

Q. At any time prior to your going out to the Elk Hills.

A. I went over a number of reports at Washington. [556]

Q. What were they?

A. There was a report by W. L. Watts, in 1894.

Q. That is the one you referred to?

A. No; I referred to the one in 1900, if you will pardon me, which is another report by Watts. The '94 report is entitled "The Gas and Petroleum-yielding Formation of the Central Valley of California, Bulletin of the California State Mining Bureau No. 3." The 1900 report is by W. L. Watts, "Oil and Gas-yielding Formations of California, Bulletin California State Mining Bureau No. 19." And then in Washington I went to the library of Congress and examined maps of this region.

Q. What maps?

A. I found a map by W. Holt,—a map of the states of California and Nevada—published in 1870, showing oil springs in this region. Also, Colton's map—

Q. You say "oil springs in this region." Do you mean the Elk Hills?

A. No, McKittrick, and the front of the range there. And Colton's map of California and Nevada, published in 1875. There was a number of editions of those maps showing the existence of oil springs in this locality.

Q. "In this locality," do you mean in the Elk Hills?

A. No; I mean in the vicinity of the Elk Hills.

Q. Any other bulletins?

A. No.

Q. And from the time you first were employed in connection with this case until you reached your final conclusion, what other bulletins or reports of the conditions prior to January 1, 1905, did you examine besides what you have mentioned?

A. The maps of the developments by Barlow & Hill which was a map published in 1900 or 1901, showing the development at [557] that time, and one published in 1904, showing the development at that time.

Q. You regarded those as accurate?

A. Approximately so. They are entirely accurate for any purpose of basis of any judgment in this case, I think.

Q. Are they official in any sense?

A. Official only in the sense that they were copy-righted.

Q. And they were prepared like any other mining prospectus, were they not?

A. I think not. I think there is a great difference between those and an ordinary prospectus.

Q. You are familiar, are you not, with the method in which maps are prepared in any mining country showing claims and developments, are you not, when those maps are prepared for general sale? You have had those experiences?

A. Yes sir.

Q. And you know, as a matter of fact, that those maps are usually based upon hearsay information at second, third, fourth and fifth-hand, upon approximations and upon vague and indefinite information, in many cases?

Mr. Mills—We object to the question as wholly irrelevant.

A. I think that may be true in certain cases, but I do not think that applies to these Barlow & Hill maps. I think they were prepared with a great amount of care, and they were prepared with much more personal knowledge of the region than is true of the character of maps to which you have referred.

Q. By Mr. Lewers—Then, in referring to the Barlow & Hill maps, you assumed that those were prepared with great care, did you?

A. No, I inquired regarding them.

Q. As the result of your inquiries you assumed that they were prepared with great care? [558]

A. Yes.

Q. And for that reason, as a scientific man, you were willing to accept them as data upon which to base conclusions?

A. Yes.

Q. What else did you examine, if anything, with reference to the conditions prior to January 1, 1905?

A. I had the affidavits which you have.

Q. And also other affidavits?

A. Which did not relate to seepages. I also talked with a number of people who were familiar with the field and had knowledge of the region, particularly with Mr. Youle and with Parker Barrett, and with others.

Q. Will you name all with whom you talked?

A. I cannot do that because I do not remember the names of many of them.

Q. Name as many as you can, Mr. Veatch.

A. Prior to what date?

Q. At any time prior to this trial—prior to the beginning of the taking of testimony in this case.

A. I talked to B. K. Lee and to Silas Drouillard.

Q. Is that all?

A. That is all that I remember distinctly.

Q. Did you talk to Mr. Brisco?

A. Not prior to the beginning of the trial.

Q. Did you talk to Mr. John R. Scupham?

A. Yes.

Q. And where?

A. At Oakland.

Q. Did you make a trip there for the special purpose of seeing him?

A. Yes.

Q. Did you talk to any other individuals in the northern [559] part of California—in the vicinity of San Francisco—in connection with this case?

A. You mean in a general way, or specifically regarding any data in the field?

Q. Either. I mean for the purpose of obtaining any information concerning this case.

Mr. Mills—We object to any general talk by the witness unless it refers to data in the field.

A. No, not for the purpose of obtaining special information.

Q. By Mr. Lewers—And the only person with whom you spoke with reference to definite information in reference to the Elk Hills or that district, in San Francisco, or in the vicinity of San Francisco, was Mr. John R. Scupham, was it?

A. No; I talked to a number of people there, but I was not seeking special information regarding the Elk Hills.

Q. Was he the only one from whom you sought special information?

A. Yes, I should say so. I can give you a list of people there that I talked to, if you wish.

Q. You mean talked to generally?

A. Yes.

Q. I am asking only as to those from whom you sought information concerning the Elk Hills or that territory. Were there any others besides Mr. John R. Scupham?

A. I talked to Dr. Branner. That was not seeking special information regarding that field. I talked also to Mr. Dumble who is chief geologist of the Southern Pacific.

Q. Anyone else?

A. I incidentally met Mr. Gester, but I do not think I mentioned the Elk Hills.

Q. Anybody else?

A. Mr. Taft, who is also a geologist of the Southern Pacific, [560] and a friend of mine.

Q. Anybody else? I am not asking for those whom you met, but merely those with whom you talked concerning this territory for the purpose of getting information, or who furnished you information?

A. I should say that I have given you those who furnished me information. I do not believe those that I last mentioned furnished me information.

Q. On what date did you first go to the Elk Hills?

A. It was the early part of February.

Q. Can you fix the date more closely?

A. It was practically the first day of February.

Q. How long did you remain there?

A. I was in that region about four or five days.

Q. And of that four or five days what portion of the time did you spend in the Elk Hills?

A. Part of one day.

Q. And the rest of the time was spent where?

A. In the region between McKittrick and Sunset.

Q. And then after you had left there where did you go?

A. I do not remember except in a general way. I was in Los Angeles and I was also up in San Francisco.

Q. When did you return to the Elk Hills?

A. I was in the Elk Hills again about the middle of February.

Q. You were there on the 22nd of February, were you not?

A. Yes.

Q. And how long were you there on that occasion?

A. Two days.

Q. And that was the time when you took the photographs?

A. Yes; part of them.

Q. Who accompanied you on that trip? [561]

A. Mr. Martin.

Q. Who has testified here?

A. Yes.

Q. Anyone else?

A. No, except the driver.

Q. Who accompanied you on the first trip?

A. Mr. Mills and Mr. Parker Barrett.

Q. Anyone else?

A. Yes; I think there was Hodgkinson.

Q. Who is he?

A. I do not know that.

Q. After your second visit about the 22nd of February, when did you again visit the Elk Hills?

A. The last of February.

Q. How long were you there on that occasion?

A. I was in that region about two days; in the Elk Hills part of one day.

Q. On your second visit how long were you in the Elk Hills?

A. Both days.

Q. Part of two days?

A. Yes.

Q. Then when did you again return to the Elk Hills?

A. That was the last time I have been there.

Q. The end of February?

A. Yes, or first of March.

Q. And you were there in the Elk Hills how long?

A. Part of one day.

Q. Have you been all over the Elk Hills?

A. I have this year been in the western two-thirds only.

Q. In the western two-thirds only?

A. Yes.

Q. Have you been all over Township 30-23? [562]

A. Yes.

Q. In every section?

A. Yes.

Q. And I understand you to say that you never made any particular examination of the formation where the railroad goes through in the western end of the Elk Hills?

A. No.

Q. Merely looked at it as the train went through?

A. Yes.

Q. You did not observe there, did you, whether or not there was any evidence of stratification dipping in different directions?

A. I thought I saw such things. It is very plain

to the north. It is rather obscure to the south. But from observations I made on the south slope of the hills, away from there, I felt sure that my suspicion there that there was a southern dip, was correct.

Q. What was the angle of the dip toward the northeast?

A. I should say it was somewhere between 20 and 35.

Q. Isn't it a fact that at that place a portion of the formation dips at an angle of about 45 degrees to the northeast, and another portion dips with an angle of less than 6 degrees?

A. It is possible.

Q. You didn't see that?

A. I saw a rather steep dip. Now, a 45 degree dip would be a rather steep dip. Between 35 and 45 degrees.

Q. Did you see right beyond that another dip of less than 6 degrees?

A. No, I don't remember seeing it.

Q. And you didn't think it important to go and look, did you, at any time? [563]

A. No, I didn't think it was especially important. It is clearly an anticlinal hill there.

Q. Who accompanied you on your fourth trip in there?

A. Dr. Branner.

Q. And on that occasion you went over to the so-called gas blow-out or oil seepage, in Section 32, 30-24, did you not?

A. Yes.

Q. Did you at any time accompany any other geologist except Dr. Branner to the Elk Hills?

A. Yes. I was in there in 1910.

Q. At what time in 1910?

A. In the summer of 1910.

Q. At what time?

A. In the summer.

Q. With whom?

A. With Ralph Arnold.

Q. How long were you in there on that occasion?

A. A day or two.

Q. Was that when Mr. Arnold was engaged in the preparation of Bulletin No. 406?

A. No.

Q. It had been prepared, had it?

A. Yes.

Q. What examination did you make on that occasion?

A. The eastern end of the Elk Hills, I was over.

Q. Together with Mr. Arnold?

A. Yes.

Q. Was Mr. Johnson there?

A. No.

Q. Did you at any time accompany any other geologist to the Elk Hills?

A. No. [564]

Q. With what geologist (and by the term "geologist" I include those of low and high degree) have you consulted with reference to the Elk Hills or that territory in the vicinity, since you were employed in this case?

A. What do you mean by "consulted?" Do you mean talked to anyone?

Q. No; talked about the country. I don't merely mean with geologists to whom you said good morning.

A. Or if I said the word "Elk Hills" to them? Is that a consultation?

Q. I think you understand what I mean by discussing the character of the Elk Hills, talking or consulting with them with reference to the Elk Hills.

A. I think I have given you all that would come under the term "consultation." I have mentioned the Elk Hills to a number of people.

Q. Then the only persons with whom you have consulted with reference to the Elk Hills would be Mr. Ralph Arnold?

A. No. I did not consult with him regarding the Elk Hills since my employment.

Q. Or Dr. Branner?

A. I think I stated that I did not consult with Mr. Arnold.

Q. Did you consult with Dr. Branner?

A. Yes.

Q. With anybody else?

A. Not that I recall.

Q. Now, have you asked any geologist questions with reference to their knowledge of the Elk Hills, aside from Dr. Branner?

A. I do not believe that I have.

Q. Haven't you discussed the Elk Hills in any

way since your employment in this case with Mr. Ralph Arnold? [565]

A. No.

Q. You have met Mr. Arnold a number of times since your employment?

A. That is right.

Q. And at no time have you referred to the Elk Hills?

A. Not consulting him.

Q. Have you discussed the Elk Hills with him?

A. No. You see there is this point: Mr. Arnold made that examination upon a geological survey; and in such examination he obtained confidential information and the Geological Survey is desirous that that confidential information shall not be infringed in any way, and, in carrying out that policy, I have been very careful not to discuss the matter with him.

Q. Although he had embodied the results of his investigations in Bulletin 406, you regarded it as still confidential?

A. So far as there might be matters that were not in there which might be touched in a discussion with him.

Q. I am not at this moment anxious for your reasons. I merely want to know the facts.

A. I have stated them.

Q. You have not discussed with Mr. Arnold the Elk Hills or the vicinity?

A. I have not.

Q. Now, have you been present at any time when

any discussion took place with reference to the Elk Hills between some geologist and any other individual?

Mr. Mills—Objected to as so indefinite as not to raise any presumption whatever that it relates to any of the issues in this case.

A. I don't quite understand your question.

Q. By Mr. Lewers—In other words, have you been present in the room that is used as an office by Mr. Mills during the [566] discussion of any geologist concerning the Elk Hills?

A. Yes.

Q. With what geologist?

A. Dr. Branner.

Q. Anyone else?

A. Mr. Martin.

Q. Anyone else?

A. I have been there a great deal.

Q. Were you present at any time during the discussion with Mr. Williams of the Associated Oil Company?

A. Yes, at part of the discussion, I think, I was there.

Q. Anyone else whom you would call a geologist?

A. I would call Mr. Youle a geologist.

Q. You were present during the discussions with him?

A. Some of them. I don't know how many were held. I was there part of the time.

Q. Anyone else? You have already testified with reference to Mr. Youle.

A. You mean with regard to some one that I have not testified to?

Q. Yes.

A. I do not recall of any.

Q. Now, since the time you were employed in connection with this case you have devoted practically all of your time to this case, have you not?

A. Yes.

Q. That is, from some time about the middle of January of this year?

A. Yes.

Q. And during all of that peirod you have been in the Elk Hills how many days in all?

A. In the Elk Hills proper about four days; in that region [567] somewhat longer.

Q. And in any of the oil fields how much have you been?

A. Possibly two weeks.

Q. That is, including the time in the Elk Hills?

A. Yes.

Q. And the total time that you have spent in actual field work in the oil fields was possibly about two weeks?

A. Yes.

Q. And what have you been doing the rest of the time in connection with this case?

Mr. Mills—That is objected to as immaterial and insulting.

Mr. Lewers—It is not intended to be insulting. I cannot see how counsel can get any such meaning.

A. I was in the hospital part of the time, if that is of interest to you. I cannot see how it is.

Q. Yes, it is. I merely want to know how long a time it was.

A. A week or two or something of that sort.

Q. I assume from your former statement that you devoted practically all of your time. So, if there is any time that you were not able to devote to your work, I am anxious to know what it was. Was there any other time aside from the time you were in the hospital?

A. Yes, there were several days that I was discussing other matters entirely, possibly covering two or three weeks.

Q. Then, aside from those periods when you were discussing other matters and for the short period when you were in the hospital, and aside from the two weeks in all that you were actually in the field, what work were you doing in connection with this case?

Mr. Mills—Objected to as immaterial.

A. I think I have stated the work that I have done in this [568] case.

Q. By Mr. Lewers—I think not, Mr. Veatch. Can you not state what work you were doing in connection with this case during the great portion of that time?

A. I have stated that there were investigations in the field. There was the review of the various reports that have been enumerated. There were con-

sultations with various individuals, occupying different times. There was preparation of a short report to Mr. Mills, which has been mentioned before.

Q. Anything else?

A. I think that covers it.

Q. Your field work took three weeks?

A. Yes.

Q. It has been a period of over three months since you were employed in this case?

A. Yes.

Q. What were you doing the rest of the time? Was that devoted entirely to reading these reports and examining these maps to which you have referred?

A. No. I have been a part of the time waiting for the trial to come to issue. I was prepared, so far as what I could do, a long time ago.

Q. Now, Mr. Veatch, did you in any way assist by giving the benefit of your advice in the preparation of this trial?

A. No, I should say not, except to explain to Mr. Mills what the geologic conditions were. We visited the Hills together for the express purpose of my pointing out to him the geologic conditions.

Q. Is that all that you did in the way of preparing for this trial or assisting in its preparation?

Mr. Mills—Objected to as immaterial.

A. I should say so. [569]

Q. By Mr. Lewers—Did you not consult with and interview different witnesses?

A. None except Mr. Scupham, and Mr. Youle I saw. I have been present when other witnesses have been interviewed on a number of occasions.

Q. You went to San Francisco to interview Mr. Scupham in connection with this case?

A. No; I was at San Francisco and it was suggested that he was there, and I was asked to call on him.

Q. And you did so?

A. I did so.

Q. Did you interview any other witnesses who have appeared on the stand here beside Mr. Youle and Mr. Scupham?

A. I interviewed Parker Barrett, as I have stated.

Q. Any others?

Mr. Mills—Objected to as immaterial.

A. No. I should not say that I interviewed them.

Q. By Mr. Lewers—Did you not talk to quite a considerable number of witnesses before they went on the stand to testify?

A. No.

Q. Were you not present during the interviews with those witnesses, in which interviews you assisted by means of your suggestions?

A. I asked questions in a number of cases, endeavoring to arrive at the facts in the matter.

Q. Is it not a fact that you were employed in this case for the purpose of assisting the attorneys for the government in the prosecution of this action?

A. I think that has been stated.

Q. And in doing so you have given practically all of your time and have rendered such assistance as was within your power? [570]

A. A large part of the time.

Q. And you have frequently contributed assistance to the prosecution in this case by suggestions as to the lines of testimony and questions to be asked witnesses?

Mr. Mills—Oh, all that is objected to as wholly immaterial.

A. How much I have contributed, would not be for me to say; it would be for the attorneys to say whether I contributed or not.

Q. By Mr. Lewers—You have endeavored to contribute to the best of your knowledge?

A. I have endeavored to; yes.

Q. You have sat in this court by the side of the attorneys for the government and during the examination of witnesses have constantly made suggestions as to questions?

A. I frequently made suggestions.

Q. And you have been in this court daily from the time this examination began, have not you?

A. Yes. I think that has been stated before.

Q. And during one of the recesses taken for a few days you accompanied the attorneys for the government on a trip to San Francisco for the purpose of interviewing witnesses there, did you not?

A. No; I did not go for the purpose of interview-

ing witnesses. It was purely a private matter that I went to San Francisco on.

Q. Did you on that trip in any way assist by means of suggestions or by means of actively taking part in interviews with proposed witnesses?

A. No.

Q. You devoted that particular trip entirely to your own private business, did you?

A. No; there was a discussion of the case with Mr. Mills, [571] but there was nothing involved in my interviewing witnesses.

Q. And you have from the beginning taken quite an active interest in this case?

A. I have. I am always interested in anything in which I am employed.

Q. And you have the same interest, have you not, in your own mind, Mr. Veatch, that an attorney prosecuting your end of the case would have?

A. No, I do not think that I have. It is purely—

Q. Do you think—

Mr. Mills—Just a moment. Let the witness finish.

A. It is purely a matter to me of what is right. I am convinced in my own mind from my knowledge of the geologists of the Southern Pacific that they knew and could not help but know from their examination in that region, that this Elk Hills territory was good oil land.

Q. By Mr. Lewers—And you are very firmly convinced in your own mind, then, that they were guilty of deliberate fraud, are you not?

A. Deliberate fraud in what way?

Q. In deceiving the United States government?

A. The fraud may rest with their superiors, and probably does. There can be a superior who stands up—

Q. Will you kindly answer my question?

Mr. Mills—Let the witness conclude.

Mr. Lewers—I desire the answer to be responsive.

A. I am trying to make it as responsive as I can.

Q. If you will listen to the question—

Mr. Mills—I object to your interrupting him again in this way. He has a right to conclude his answer.

A. Not necessarily so, for this reason: It is possible with a large organization of that kind to have those at the top [572] gather information from one side which is definite that that is good mineral land, and to then pull the string in another direction and have that land selected by some one else. To say that the geologist who reports that to be mineral land is guilty of fraud, I do not think necessarily follows. He reported what was the truth and the fact.

Q. By Mr. Lewers—And you assumed that the geologist of the Southern Pacific Railroad Company has reported as to the character of that territory in the way that you have now stated?

A. I concluded that they knew it was mineral land.

Q. The geologists or employees of the Southern Pacific Railroad Company knew the character of that country?

A. I think so.

Q. You have testified that you examined certain affidavits, certain of which on my demand were furnished me.

Mr. Mills—On your request, you mean, don't you?

Mr. Lewers—No; I will put it the other way.

Mr. Mills—You are trying to be impolite this morning in some way.

Q. By Mr. Lewers—In that connection I will ask you if it did not strike you as somewhat peculiar that the affidavit of Mr. B. K. Lee should state the following: "I know Professor John Owen who was geologist for the Kern T. & O. Company" meaning the Kern Trading & Oil Company, "who came to me in 1903 and made my acquaintance in order that I might show him the section corners in the north end of the McKittrick field. He was at that time examining the land as to the formation for said Company. From that time until December, 1909, I met him frequently." And after having made a sworn affidavit to that effect, he testified as follows with reference to Mr. Owen on Page 303 of the transcript: "Q—Were you acquainted with Mr. Owen during his lifetime—the geologist? A—Yes sir. Q—Whom was he working [573] for at that time? A—He was working for the S. P. Company. For the S. P., I should say. Q—In what capacity? A—Geologist."

A. I think there is no conflict in those statements to the ordinary man, for the—

Q. You assume—

Mr. Mills—Just a moment.

A. —for the reason that I think Mr. Owen stated that he was a geologist for the Southern Pacific, and that he was also consulting geologist for the Kern Trading & Oil Company. I think he held both positions.

Q. By Mr. Lewers—Where did you get that suggestion?

A. He stated that under oath that he was a geologist for the Southern Pacific Railroad Company.

Q. Mr. Owen did?

A. For the Southern Pacific Railroad Company and for the Kern Trading & Oil Company.

Q. Was Mr. Owen under oath in this case or any other case?

A. I can't say that it was in this case.

Q. Who said that?

A. Mr. Owen said that under oath, is what I said.

Q. Where?

A. In a contest proceeding before the General Land Office.

Q. When?

A. In 1907 or '08.

Q. And it did not occur to you that Mr. Lee was referring to a period prior to 1904, did it?

A. It occurred to me in this way: That Mr. Lee is a man that has been in that country for a great many years as an oil operator, and the relation between the Kern Trading & Oil Company and the Southern Pacific Company is one of notorious common knowledge there. Whether that is right or not—

Q. As a scientific man, you accept notorious common knowledge [574] as proof of a man's employment, do you?

Mr. Mills—Finish your answer first.

A. I think in matters of that kind it has a very conclusive value.

Q. By Mr. Lewers—Just as it had in the Union Pacific case?

A. In what way?

Q. As it appears in professional paper No. 56?

A. I know in the Union Pacific case, this: That the Union Pacific Coal Company acquired certain lands—coal lands—in which there was no outcropping of coal at the surface. It laid down the dip from the outcrop. They acquired that as agricultural land, the superintendent of the coal company making affidavit that it was non-mineral land. I know that Judge Cornish who was first vice-president of the Harriman system, came to Washington on that matter and made no question of any difference between the Union Pacific Railroad Company and the Union Pacific Coal Company, and that on that occasion Judge Cornish said that he was not a geologist, but that if as a layman he could be convinced that that was coal land, he would reconvey it to the Government, which was done.

Q. What has that got to do with this case?

A. Probably if Judge Cornish were alive, this case would not occur.

Q. You draw that conclusion?

A. Yes; from my opinion of Judge Cornish.

Q. You do not have as good an opinion of the other attorneys in this case?

A. The other attorneys in this case have not come in that manner and said, "If you convince me as an ordinary man that this is coal land,—" I think you might be convinced that this is oil land, just as a fair man. [575]

Q. You think probably the defense in this case is not in the same fair attitude of mind toward your views or the views of the Government as Mr. Cornish was?

A. No, not to my views but to the facts, to the evident facts of the matter.

Q. You see a distinction between your views and the facts?

A. No; it is perfectly good oil land and any geologist would advise its acquisition for that purpose and its development for that purpose.

Q. We will come to that in very specific detail. What other action have you taken or what other assistance have you rendered the prosecution of this case besides what you have already related?

A. I think that covers it.

Q. I will ask you again, is it not a fact, to your knowledge, Mr. Veatch, that you were employed in this case by reason of the result of the case of the United States against the Diamond Coal and Coke Company?

A. No, I should not. I think I was employed

because I had been chairman of the Oil Land Classification Board, and the Coal Land Classification Board of the Survey? I was engaged in private work and had been specially interested for a number of years in the matter of mineral lands in the public domain and the matter of the disposition of those lands.

Q. You did testify as an expert in that case to which I have referred?

A. I did.

Q. And is not your illustration given in connection with this case in your direct examination of the coal outcropping around the side of a valley based upon what was revealed by the testimony in that case?

A. No; that is purely a scientific statement. [576]

Q. You perhaps do not refer to what I refer. When you made the statement, Mr. Veatch, that if you had a coal outcropping showing itself around the sides of a valley, that you could from that fact determine that coal existed in commercial quantities underneath the bed of a valley?

A. No; you could determine that that was coal land. I could not guarantee to any man that there would be commercial coal there, but I would say that the possibilities of developing coal were so great that it has a value expressed in dollars as coal land. I would expect that man to make a commercial success. I would advise him on that basis the same as I would on oil land. I would not guarantee that the

oil land was a commercial proposition, but I would say that I believed that it was and that it would justify him in spending his money on the coal field likewise.

Q. I asked you a simple question, and you answered—whether your illustration was based on the Wyoming case, and you said not. Now, I will ask you another question. In the Wyoming case is it not a fact that there was an outcropping very distinctly shown on the ground for the greater portion of its distance—for seven or eight miles—along the side of the valley, dipping at an angle of from fifteen to twenty-seven or thirty degrees toward the west, underneath the floor of the valley, and that that outcrop at one point approached the land in controversy and within a few hundred feet, and that the land furthest removed from that outcrop—by that I mean the land in controversy—was at a distance of about one mile?

A. I think it was more than that, as I remember it. I can check it exactly, if you desire.

Q. Well, for more than a mile? Would it exceed a mile and a half?

Mr. Mills—Just allow me to interpose this objection. [577] You are referring to the Diamond Coal and Coke Company?

Mr. Lewers—I am.

Mr. Mills—That is so far removed from the issues in this case, that I must object to the question because of its utter immateriality and irrelevancy to any of the issues in the case.

A. I would have to check that to make an exact statement.

Q. By Mr. Lewers—What is your recollection?

A. It is probably a couple of miles. Another factor entered in there of importance: That the coal in those farther tracts were about fifty-five hundred feet from the surface, and the deepest mine in that region at that time was about five or six hundred feet.

Q. Did you testify in that case that the coal was fifty-five hundred feet?

A. I think so.

Q. Did you not testify that it was about two thousand feet?

A. As to specific tracts only. The coal varied in depth. I can give you the exact depth at any part of that land if you desire it.

Q. I do not desire that. What I want to know is whether or not in that particular case there did not exist actually developed mines both to the north and south on that outcrop?

A. Yes.

Q. And those had been developed to what distance down the dip?

A. You mean at the time that I examined them or at the time that that land was acquired?

Q. At the time you examined them.

A. It was in the neighborhood of half a mile. I can give you that exactly, if you wish. [578]

Q. And it is also a fact, is it not, that at a distance of from between three and four miles to the

east of that outcrop there was another very large lignite deposit?

A. No; there was not.

Q. That is not a fact?

A. No, it is not a fact.

Q. Then, Judge Hook's opinion in that respect wherein he states that there was such a deposit, was in error?

A. If he said to the east of that he is in error.

Q. In what direction was it?

A. West.

Q. It is immaterial as to the direction. What was the distance?

A. It was about six to ten miles. I can give you that exactly. That is simply recollection. I can refer to the maps and give it to you exactly.

Q. At the time when you examined the development of that outcrop that had taken place, there had been work done within two or three feet of the land in controversy at one point?

A. One tract only. There was a great number of tracts scattered over a large area.

Q. If you pay attention to the question. At one point in the land in controversy.

A. Yes, one point of one tract.

Q. And at one point it had approached more or less closely?

Mr. Mills—Further examination on that line is objected to as wholly immaterial.

A. On some tracts it was three or four miles from the land—

Q. By Mr. Lewers—In controversy?

A. Yes sir.

Q. Is it a fact that there was not a portion of that land [579] in controversy that exceeded a mile and a half from the outcrop?

A. Yes, but the mines that you refer to are ten miles apart, and some of them fifteen miles, possibly. The work on the mines could not have approached these places in between, possibly. The land was seven miles from the mines.

Q. Mr. Veatch, if you will pay attention to the question, the question was, was it not a fact that at some portions of the outcrop the development at the time you examined it had approached to within a short distance of the land in controversy?

A. In one tract, yes. That has been testified to. But there were a number of tracts.

Q. And that was all?

A. That is all I can recollect. I can refresh my memory by looking at the map and give you an exact statement, if you desire.

Q. Now, when you stated in your examination that you were acquainted with that portion of the oil fields of California represented by what is known as the McKittrick and Sunset districts, did you mean that you were acquainted as the result of your personal examination?

A. In a general way, yes.

Q. But most of your information was derived from what source?

A. There is a detailed map by Ralph Arnold which I used for the general relations; not for the specific points—

Q. That is, the map accompanying Bulletin 406?

A. —believing that the geology in 1900 or a hundred years previous, or more, was just the same as it is today—

Q. You insist on arguing the matter and I shall be compelled to assume that you are in the position of a partisan. Will you kindly answer my question and refrain from suggesting other matters?

Mr. Mills—I suggest to counsel that he permit the answer [580] to be fully made before he interrupts.

(The reporter reads the question.)

Q. By Mr. Lewers—Is that the map you referred to?

A. Yes.

Q. That map was used by you as a basis for your general examination in that field, was it not?

A. Yes.

Q. Now, you say that your information in a general way or partially was obtained from your personal observation, and you also made use of this map. From what other source did you obtain information concerning that oil district?

A. From the report of Mr. Frank M. Anderson who was—

Q. Covering what territory?

A. —the geologist of the Southern Pacific Company.

Q. Covering what territory?

A. The report is entitled the Mount Diablo Range, or something like that,

Q. Covering what territory?

A. Covering the territory from McKittrick to Coalinga.

Q. And the Elk Hills?

A. No.

Q. Any other bulletin or report?

A. No; not that I recall.

Q. Then your conclusions as to the territory referred to are based upon a partial personal examination and upon a map and, I suppose, the bulletin of Mr. Ralph Arnold?

A. The map.

Q. Just the map?

A. Yes.

Q. And this report of Mr. Frank M. Anderson?

A. Yes; with the statement of seepages and wells that we have discussed before. [581]

Q. And in addition to that you say you had in mind in forming your conclusions the various seepages that have been testified to?

A. Yes; I had a portion of them in mind.

Q. And you had obtained some of that information from affidavits?

A. Yes.

Q. Some from personal interviews with witnesses?

A. Yes.

Q. And some from publications?

A. Yes.

Q. And some from personal observations?

A. Yes.

Q. And did you base your conclusions in any way upon this evidence concerning the seepages?

A. Yes.

Q. And did you base your conclusions in any way upon the evidence concerning the seepages in the Elk Hills?

A. That was confirmation of the conclusion reached from the seepages in the outcrop.

Q. Then the evidence concerning the seepages in the Elk Hills would have been unnecessary for the purpose of reaching the conclusion that you did reach?

A. I think so. That is simply confirmation.

Q. And in reaching these conclusions you disregarded, did you not, the testimony of Mr. Jacob Kaerth as to asphaltum reefs in 30-23?

A. I reached that conclusion before I heard that.

Q. You disregarded that testimony, did you not?

A. Yes.

Q. Because you knew it was not true?

A. No; I didn't know that it wasn't true. I knew that [582] you objected to it very strongly, and, in order that there be no point of difference in our view-points, I omitted it. I also omitted other testimony. I omitted the testimony of—

Q. Will you answer my question about Mr. Kaerth? We will come to the other testimony.

Mr. Mills—I object to counsel interrupting the witness all the time when he is concluding his answer.

Mr. Lewers—I shall continue to interrupt when he gets onto matters that are not responsive, because I want to get through with this examination.

A. I wish to say that I omitted the statements of Ira M. Anderson in the same way.

Q. By Mr. Lewers—With reference to the oil indications in 30-23?

A. No; in 30-22, that happened to be.

Q. Did you not disregard both those witnesses in that respect because you knew from your own examination that they were testifying to something that was not true?

A. No; I saw no asphaltum reefs on the land. But Jacob Kaerth also testified to seepages in 17 and in 25 of 30-23, which I regard as entirely probable.

Q. Did you see those?

A. I did not.

Q. You think they are probable, however?

A. They are corroborated by other witnesses. They occur along the axis of the anticline there where it is quite likely that he would find such small seepages.

Q. What other witness corroborates that statement made by Mr. Kaerth and Ira M. Anderson?

A. The Ira M. Anderson testimony is not corroborated. That relates to 30-22.

Q. Is the Jacob Kaerth testimony corroborated?

A. Yes as to 17. There is Captain Frank Barrett's corroboration.

Q. Which you regarded as plentiful?

A. Yes. As to the other portion of Kaerth's testimony relating to 25, Mr. Waggy testified to something that was probably in 26, and those might readily refer to the same locality. One was in the southwest quarter of 25 and the other was possibly in 26, and those could refer to the same point. I may say further, in those small seepages, the conditions by looking at them now, are much poorer than they were before people commenced drilling in the hills. That 26 matter could not be checked as it is now, because there is a great mass of waste oil there and you cannot tell whether it is the waste oil of today or an original seepage.

Q. A great mass of waste oil on Section 26 at the present time, is there?

A. Yes.

Q. And you say that this testimony of Mr. Barrett was corroborated by Mr. Waggy?

A. No; that the testimony of Mr. Kaerth regarding 25 was corroborated by Mr. Waggy.

Q. That is in Township 30-23?

A. In 30-23.

Q. Were you not aware that in the affidavit furnished by Mr. J. I. Waggy he stated as follows: "That in 30-23 I never found any asphaltum exudation, but there were gypsum deposits there where I dug down into a gypsum bed where it was in powdered form,

but never knew of any gypsum in this township in the crystalline form, and I am of the opinion there is not gypsum in said township sufficient to make it commercially valuable.”

Mr. Mills—What are you reading from?

Mr. Lewers—The affidavit of Mr. J. I. Waggy. [584]

A. I do not see what that has to do with the statement that you refer to. It is not a matter of gypsum.

Q. You don't see that his statement that he found no asphalt indications anywhere in 30-23 has anything to do with your conclusion that he corroborated the other witness?

A. If you look up the record,—I may have incorrectly stated. It is M. S. Waggy that testified to 26.

Q. Have you an affidavit from M. S. Waggy?

A. No; I did not testify that I did.

Q. You did not at any time have an affidavit from M. S. Waggy?

A. This statement is based on the statement in the record, and not the statement of J. I. Waggy.

Q. Just what did you use as the basis of your conclusions concerning the Elk Hills being oil lands, in short form?

A. Along the east flank of the Temblor Range there is a series of porous beds exposed, which can be traced for many miles readily. Along this outcrop or near it where there has been a slight faulting, there are seepages of oil. These seepages extend from below Sunset to north of McKittrick,

showing a persistence of the oil impregnation in those porous beds. These porous beds dip to the eastward or northeastward, toward the San Joaquin Valley, and are interrupted by a number of folds. That is, the gentle slope is interrupted by a number of folds, these folds being of ideal character for oil accumulation. One of these folds is the Elk Hills. It is, broadly speaking, an elongated dome, and from the persistence of the oil along the outcrop as shown by those seepages, and that showing also corroborated by the great number of wells that have been sunk down the dip from this outcrop prior to 1904, indicates to me that the Elk Hills is very good oil land.

Q. Now, specifically, Mr. Veatch, where did you get the in [585] formation about these porous beds?

A. By examination along the outcrop there.

Q. That is based, then, upon your actual observation?

A. And from the description of the material lying there. That is, the upper part of those beds above the diatomaceous shale. There is a general description of that in Anderson's report—Frank M. Anderson's.

Q. And where situated?

A. And there is also a description in the report by Arnold.

Q. Did you disregard Arnold's description?

A. No.

Q. Where did you get your information concerning the dip at the various points?

A. You mean the general dip to the valley?

Q. Yes.

A. I observed that myself.

Q. And you determined the dip of the formation which you regarded as carrying the oil or producing the oil from your own observation on the ground?

A. I did of the dip of the formation through the valley, yes.

Q. And in reaching your conclusion as to that, you relied on nothing except your observation?

A. No, but I should think it was sufficient.

Q. I want to know as a fact did you rely on anything else in reaching your conclusion as to the dip toward the San Joaquin Valley of these formations?

A. I had the Arnold map.

Q. And did you disregard what was said on the Arnold map?

A. Not in general. I might in detail.

Q. That is, you disagreed with it in some respects?

A. In minor respects, yes. I think it is a correct [586] general picture of the region. It does not pretend to be a final map of the region. It is merely a preliminary map.

Q. And do you pretend to have made a final determination of the dip of that region?

A. No.

Q. Your observation was merely cursory?

A. It was a matter of examination to determine whether the Elk Hills were oil lands, and that was sufficient to do that.

Q. Your examination was merely a preliminary and cursory one as geological examinations go?

A. It was certainly not a detailed one. That is, of the whole region.

Q. Now, Mr. Veatch, where did you get your information concerning the slight faulting in the McKittrick fields which you have referred to?

A. I was over the McKittrick field there. It shows a broken structure. It was evident in passing through. I did not work out the details.

Q. Would you say it was slightly faulted or greatly faulted?

A. My impressions of the McKittrick is that it was rather badly faulted.

Q. Now, passing to the southeast of McKittrick, did you observe the existence of any faults down the dip, or the non-existence of any?

A. I followed down that range of hills in order to satisfy myself whether or not those beds continued into the Elk Hills, whether there was any interruption of the structure between the two; and I endeavored at the same time to reach some approximate idea regarding the depth, that being information which was plainly visible prior to 1904. [587]

Q. Then you did determine, did you,—and that was the question, Mr. Veatch,—that there were no faults in the front to the southeast of McKittrick?

A. To the southeast?

Q. Yes.

A. Just what place?

Q. In any portion of the country that you examined there.

A. There are some faults near McKittrick south and southeast of McKittrick.

Q. Going further south and getting opposite the Elk Hills proper, was there any fault?

A. There is minor faulting.

Q. Did you determine that there was nothing but minor faulting?

A. That was my opinion.

Q. Now, you found oil seepages in the Temblor Range, for what distance?

A. They are shown on this map Exhibit I for about thirty miles, and extend for a still greater distance.

Q. Now, in determining how far the oil horizon extended into the San Joaquin Valley, you inadvertently measured your total distance on the map as fifteen miles. Is that correct?

A. No; I measured it as fifteen inches.

Q. And assumed that that was fifteen miles?

A. Yes, transposing that and stating the matter, I read the fifteen units.

Q. And that threw your oil out into the valley only seven miles and a half?

A. Threw it out seven and a half units.

Q. You testified seven miles and a half?

A. Yes sir; that was an error. I said that the measurement was a matter of fifteen units of one kind, and extending [588] from below Sunset to

above McKittrick. Now, half of that distance would include the Elk Hills.

Q. Then you corrected that to thirty miles along the axis and fifteen miles out from the axis?

A. Yes.

Q. Now, wasn't that a determination of the existence of oil at a given distance from the range purely by mechanical means, which permitted you to make that sort of an error in your calculation?

A. Yes. It follows this way: The matter is one of ratio. It is simply to take that map, and the distance is a matter—whatever the true distance on the map is,—which shows on the map, and it shows the proven distance along the outcrop.

Q. Now, if your proven distance along the outcrop instead of being thirty miles had been five miles only, by the same application of the same law of horizon, your oil would extend out into the San Joaquin Valley two miles and a half? Is that a fact?

A. If you can only know—

Q. Will you answer my question?

A. Did I understand you to say that a man knew as a positive fact from the outcrops that there only existed seepages along five miles of territory?

Q. Correct.

A. Then, on that assumption, I would advise simply for that two and a half mile limit as a good proposition. The geologic structure would, however, probably include other areas, and if that geologic structure was very favorable I would also advise drilling there as a less favorable area.

Q. Now, if I understand your position correctly, I understand that if you have indications of the existence of oil along the Temblor Range for a distance of thirty miles, that [589] you take the center of that outcrop and, it being the center of the general circle, taking the radius of that as half the distance, you swing that out around into the San Joaquin Valley—

A. And also back into the hills.

Q. —and back into the hills—and assume that the oil will probably be out there that distance?

A. If the geologic structure is favorable. But on that point, it is not favorable to the west of that outcrop for the occurrence of that sand, because the sand is missing and, therefore, that part of the semi-circle is valueless. Your geologic conditions show that it is valueless.

Q. In other words, it is the same as if you put a ladle full of batter upon a hot pan on the stove. It would tend to spread out and approximate a circle, unless it ran up against something?

A. Well, that may be used as one illustration. Perhaps I can explain that.

Q. I think I understand it perfectly.

A. I would like to explain it to you further. Suppose you have—this is merely one method of arriving at the probability; there are other methods that are quite sufficient—if you have a series of horizontal beds, we will say two thousand or three thousand feet thick, but the thickness is of minor importance

in this matter, and you dig a trench along those horizontal beds, which trench is thirty miles long, and your trench is three thousand feet deep or more; at the bottom of that trench you find sand with oil. Now, I think that a man would be justified on that showing of oil at the bottom of a trench for thirty miles to go fifteen miles on each side of that trench and regard it as good territory, unless there were geologic conditions to preclude the possibility of the oil extending. That applies here in this way: If those hori- [590] -zontal beds are tilted, and you have all the beds removed from one side of the trench, that is to say to the right or left of the trench, there would not be oil on that left-hand side, and that is exactly what occurred here in a general way. The left-hand side of the trench is removed by erosion—all the beds on that side—and you have nothing but the underlying beds below the particular oil horizon that we are discussing. But on the right-hand side, extending off into the side, you have the beds, and on that showing you would be justified in going fifteen miles from the trench as good territory, providing the geologic conditions were favorable.

Q. Can you mention any occasion when Mr. Arnold or any other geologist familiar with California oil shales has enunciated this pancake theory, as I might term it?

A. No. It is a matter of probability in stratified deposits. It is used in the classification of coal lands very extensively.

Q. And you, so far as any publication is concerned, are the pioneer in applying this theory to the California oil fields?

A. I don't know that it has been applied by anyone else. It is merely one way of illustrating the oil value of those hills. It can be demonstrated entirely without that. Being simply a matter of probability, you know by the exposure—

Q. I ask you if any other geologist had used this method. I did not ask for any other methods. I will come to them.

A. You know by the exposure that this is oil-bearing for thirty miles, and that exposure indicates the persistence of the beds off into the valley.

Q. Now, taking your horizon theory or whatever name you may give it, which you admit is new in the oil fields—

A. It is new stated in that way only. I think it is [591] applied practically many times—the fundamental principles.

Q. Very well. If there should exist anywhere in this plain that your oil is going to spread out on, an obstruction, your rule would fail, wouldn't it?

A. That would depend on the method in which your oil sand has been impregnated.

Q. And if there were no water in the formation it would be one thing while if there were plenty of water in the formation it would be another?

A. It depends entirely on the manner in which the oil got into the sand.

Q. That is, this rule would apply provided all the other conditions made it possible in a given case?

A. Provided the geologic conditions are so favorable, and they are so favorable here.

Q. And it is not the rule of the occurrence of oil at all, is it?

A. The rule for the occurrence of oil?

Q. Yes. That it will occur in horizons as you have expressed it,

A. I think that the land within that radius determined in that way would have a greater value than the land lying outside.

Q. That is not the question. Is there after all any such rule as the one that you have laid down for determining the oil character of ground recognized by any geologist or any practical oil man? Isn't that practically an inference of your own?

A. No, I should not say so.

Q. Now, I understand you to say that the conclusion reached by you from these outcrops in the Temblor Range does not require any corroboration. Is that correct?

A. As to the value of the Elk Hills for oil territory? [592]

Q. Yes.

A. With the adjoining wells there?

Q. Yes.

A. I think it does not.

Q. You would have been able to reach that con-

clusion in 1904, even if there had not been a well on the Temblor Range?

A. Right.

Q. And would have been able to determine the oil value of the Elk Hills in the absence of any development whatever in the Temblor Range?

A. I should have said they were valuable oil lands. The value would increase when those wells were sunk in the face of the range.

Q. That is, at this time after you have had the benefit of all your studies since 1904 and have read the bulletins and descriptions of the oil fields in California since 1904, you now venture the opinion that in 1904 even without a well in the outcrop or anywhere along there, you would be able to say that the Elk Hills were valuable for oil?

A. Without the knowledge I gained, in 1904, if I had been in that range in 1903 or '04, I would have said then that the Elk Hills were good oil territory.

Q. And with every assurance of being right?

A. I think it is good oil territory, yes.

Q. Why was it when you went into that territory, Mr. Veatch, to make these examinations, that you sought to place yourself in the attitude of a man in 1904? Who told you to do that?

A. Mr. Mills.

Q. And you religiously endeavored to do that in reaching your conclusions?

A. Yes sir.

Q. And the conclusions that you have here stated

in your [593] direct examination were stated from the standpoint of a person's knowledge in 1904?

A. Right.

Q. Then, Mr. Veatch, why was it that you testified as follows on page 1374: "I might state that the testimony which I offered this morning was not the report that has been referred to but was my opinion given after hearing all of the witnesses in court and would be based upon much more information than I had at the time that I wrote that report, which was not put in evidence."

A. It is this: That in reaching that conclusion I had the affidavits which you have there, giving seepages at McKittrick and at Sunset and in between, and the seepages in the Elk Hills. I relied upon that statement and the statement of Mr. Youle and Mr. Barrett regarding seepages in between. Now, there was a great deal more detailed information given in the testimony than was given in those statements. You have a great list of references to these statements. My opinion is this: That with the information that I had the conclusion was justified. With the additional information, it is merely corroboration.

Q. Now, Mr. Veatch, was your direct testimony based upon all of the evidence that has been introduced in this case up to the time that you testified, or was it based upon what a man in 1904 would have known or did know? Which is the fact?

A. The fact is, regarding the seepages—we were

discussing the seepages. If I said the whole testimony, it should be restricted. I was talking about nothing but seepages—seepages known prior to January 1st, 1905.

Q. Then you desire to modify that answer that you gave at the end of your direct examination which I read you?

A. That my conclusion is based upon evidence existing [594] prior—seepages known prior to 1905.

Q. Then your conclusions as you announced them were not based on all the evidence, but were based on what was known in 1904? Is that correct?

A. Based upon the seepages and the wells known—existing, I should say—prior to January 1st, 1905.

Q. Then you did not mean what you said when you replied as follows: “The testimony which I offered this morning was not the report that has been referred to but was my opinion given after hearing all of the witnesses in court and would be based upon much more information than I had at the time I wrote that report”?

A. That is a true statement.

Q. Then your opinion and your testimony as given on direct examination prior to the time you made this reply, was based upon all of the evidence received up to that time?

A. All the evidence relating to seepages and to wells.

Q. Did you say seepages when you replied as follows: “The testimony which I offered this morning”

—didn't you mean by that all of the testimony which you had given?

A. All my testimony?

Q. Yes.

A. My conclusions?

Q. Yes.

A. Yes.

Q. Then you did not mean merely the seepages?

A. I did mean the seepages. I have explained that to you several times.

Q. Did you mean anything more than the seepages when you answered it?

A. The seepages and the wells. The information—I wish to explain that in going into that region and investigating [595] that region, my whole point has been to place myself in the position that the geologist would have been prior to 1904. The evidence existing on the ground at that time was entirely conclusive.

Q. You have not yet answered my question, and I desire you to pay particular attention to the question. Did you not testify and did you not mean to say in your direct examination that you based your conclusions upon all of the testimony that had been introduced up to the time you testified?

A. What I said is, of course, in evidence there. What I meant, I have explained. It was a matter of the seepages and the wells. That is the only point in the testimony that was of value to me as a geologist in determining what I would have thought.

Q. Did you not reply as follows to this question by Mr. Mills: "Then, in fact, your report is not based upon affidavits and statements? A—It is not; that is, it is not essentially based upon the affidavits. I used some of the affidavits, but if the affidavits had not been at hand and I had simply talked with the witnesses that I did talk to and had the published reports referred to—that is, the field work prior to January 1st, 1905—I would have had sufficient data to form an opinion." Did you so testify?

A. Yes.

Q. Now, the opinion you refer to in that answer was your opinion of the character of the Elk Hills as oil territory?

A. Yes; and in which is naturally understood would be a personal knowledge of the region necessary as to the geologic structure. That, I think, is fairly implied in that answer. If it is not, I should correct it in that respect.

Q. That is, in addition to that, you took into account your personal knowledge of the region? [596]

A. Yes.

Q. And did you not take into account in reaching your opinion and conclusion which you testified to everything that you had ever heard or seen in connection with the territory?

A. No.

Q. Do you think, Mr. Veatch, that you have such control over your mental processes that you can eliminate from your mind information that you have

received concerning a particular territory and can form a conclusion utterly regardless of that information?

A. I think that is psychologically possible.

Q. Is it psychologically probable?

A. I think it is. I think it can be done.

Q. Do you believe that in the year 1912 and at a time when it is admitted that the knowledge of the geology of the oil fields is much farther advanced than it was in 1904, a man who has had no experience whatever in California oil fields can go into those fields and as the result of an examination made in 1912, and as the result of reading literature concerning those fields, dating both before 1904 and after 1904, can form a fair opinion that would have been formed by a man in 1904 utterly ignorant of what would thereafter be discovered in the ensuing years?

A. Yes; and in explaining that I can say that my knowledge—my detailed knowledge of the refinements of the geology in this field today is very meager. I have seen it simply in going over it just as I would have seen it in 1904. I have not these detailed well records. I purposely refused to look at the well records, and the great amount of data and information which is available in this field upon which I could predicate a report now, I have not had and do not know of.

Q. In other words, you know very little about the oil [597] territory?

A. I know what a man would know in 1904.

Q. Then a man in 1904 would know very little about it?

A. No; not at all. I say—

Q. Now, answer my question. Isn't it a fact that you know very little about the territory?

A. I should say I know less than other people.

Q. Isn't it a fact that in general you know nothing about California oil conditions?

A. I should say no to that.

Q. You think you know something about it?

A. Certainly I do.

Q. Have you been in Coalinga?

A. I have.

Q. In Kern River?

A. I have.

Q. Have you been in Summerland?

A. I have not.

Q. What other oil fields have you been in?

A. If you ask me I can tell you.

Q. I wish you would tell me. I may not know them all. I do not pretend to be an oil expert.

A. I have examined this region about McKittrick carefully enough to form a correct judgment regarding the value of the Elk Hills. I believe the Elk Hills are valuable oil territory. I am confident that I would have formed that opinion of them if I had examined that territory in 1903 or '04, and I may add that any competent geologist would have reached the same conclusion at that time.

Q. We will come to that, Mr. Veatch. And, I think, also, that you will add, will you not, that your determination of the oil value of the Elk Hills from the evidence which you have taken [598] into consideration is conclusive?

A. As to the oil land, yes. I think it is oil land.

Q. It is what you would as a scientific man term a conclusive demonstration?

A. It is conclusive in this: That I would advise a person to acquire that for oil land. I would advise him to drill it as oil land. I would not guarantee that he would get a commercial well. I would not guarantee in a case of coal that it was a commercial proposition from the outcrop.

Q. You disagree with Professor Branner in that respect?

A. In what respect?

Q. Coal.

A. No; I think not.

Q. You heard his testimony?

A. I don't know of any contradiction.

Q. You don't know of any contradiction between yourself and Dr. Branner in connection with coal?

A. I think we are in entire accord.

Q. From your recollection of his testimony, you are in entire accord with him?

A. He said this—

Q. I am not asking you that. From your recollection of his testimony, you know of nothing with which you disagree?

A. I agree with him. There is only a possible point in which there could be any suggestion of a disagreement,—that Dr. Branner said that a geologist could calculate the tonnage of coal in land that had not been developed. I simply say to that that the geologist's calculation as to the tonnage of coal is open to error.

Q. And you would disagree with that in that respect?

A. If that is a disagreement, yes.

Q. Did you testify in reply to a question by Mr. Mills: [599] “Now, Mr. Veatch, you have spoken of an opinion which you formed of the character of the lands in suit and the adjoining lands in the Elk Hills from certain seepages and from certain other physical evidences of adjoining territory, besides the geological formation of the lands themselves and their relation to these seepages. Did you have, at the time you formed that opinion, all of the seepages which you have collected and given references to in the reporter's transcript at the time you formed that opinion? A—No; only a portion of them. Q—Have these additional seepages tended in any way to change your opinion of the oil character of the lands in suit? A—No; the evidence, without the additions, was to me conclusive, and these would have strengthened it if there had been any doubt.” Do you desire to modify that answer?

A. No, I think not.

Q. You think that is a fair statement of your opinion?

A. Yes.

Q. Then in your mind, even without the evidence of these additional seepages, there was absolutely no doubt of the character of the Elk Hills as oil land?

A. With the qualifications that I have made.

Q. Did you put any qualifications in when you stated that it would be conclusive and that there would be no doubt?

A. There is no doubt that it is oil land.

Q. Do you now desire to qualify that?

A. No.

Q. And that conclusion would have been just as certain and just as positive, even if there had been no wells in the Temblor Range or along the Temblor Range in 1904?

A. No; I think I have testified that from those seepages alone I would have concluded that that was oil land.

Q. That is my question. [600]

A. With the additions of the wells it increases the value of the oil land.

Q. Did you not testify as follows at page 1354 of the transcript, in answer to this question: "Q—Are there any other evidences which would in any wise corroborate the prediction of oil in the Elk Hills you have stated? A—If any corroboration were needed with regard to the line of evidence outlined, it is found in the seepages in the Buena Vista Hills and in the Elk Hills; and any questions which might arise with regard to the persistence of the oil,

as shown by these seepages, are conclusively set aside by a great series of wells which had been sunk prior to 1904 down the dip from these seepages, and connecting, showing that the seepages represented oil in commercial quantities." You so testified, did you not?

A. If you read it correctly, I did.

Q. I have, Mr. Veatch.

A. You cannot expect me to remember exactly the words I used.

Q. Do you desire to modify that answer at this time?

A. No.

Q. Then, even without the knowledge of any well, your conclusion would have been just the same and without doubt?

A. I said it would be oil land and would advise the acquisition for oil land. I said it would be more valuable as oil land if the wells were sunk. There is a whole series of factors which show to me without any doubt that that is good oil territory.

Q. Then you recognized when you gave your testimony on direct examination and recognize now that it is possibly necessary that there be some drilling to determine whether land is commercially valuable for oil?

A. Oh, yes. [601]

Q. And that would be true of the Elk Hills?

A. Yes. Just as in a coal mine you would have to mine your coal before you knew it was commercial.

Q. Did I ask you anything about coal mines?

A. I merely offered that as an explanation.

Q. Now, without any corroboration of the oil wells and seepages, would you have termed the Elk Hills proven oil lands?

A. No.

Q. Did you not testify as follows on page 1353, after explaining what has been termed here the horizon theory—

A. By you.

Q. I believe you called it that. I call it the pancake theory. "Applying this distance of seven and a half miles from the outcrop, it includes the Buena Vista Hills and the Elk Hills—"of course, you mean to correct that to 15 miles—"and the Elk Hills, and the only question which could remain regarding the oil value of the territory outlined in this way would be with respect to the synclinal areas, the valley lying between the Elk Hills and Buena Vista and McKittrick Hills and the valley lying between the Buena Vista Hills and the outcrop along the front of the range. Both the Buena Vista Hills and the Elk Hills fall within the proven area from geologic determinations."

A. Yes.

Q. And you do not desire to modify that?

A. No.

Q. Then after you had examined your seepages in the Temblor Range for that distance of 30 miles, and applied your 15-mile horizon, the only question

that remained as to the oil value would be as to the syncline?

A. That would be oil land. I have testified frequently, and I think you saw the relation, that I would consider that [602] oil land and that I would advise a man—that I considered it to be demonstrated geologically that that was a good oil proposition and that I would advise a man to drill it and buy it; but I would not guarantee that he would get commercial oil.

Q. What did you mean by saying that the only question that could remain regarding the oil value of the territory would be in the syncline?

A. Just as I have explained.

Q. You do not mean value, then, when you use that word?

A. I think so. The value of oil land—oil land has value which has no well and which has not been proven in the sense of proving it by a well. But it is a common commercial transaction to sell land and pay an oil-land price for it where there is not a single well on the land and which is not proven in that way.

Q. Sold for speculative purposes?

A. Sold as a business proposition.

Q. When you used the term “value”, you meant something upon which you could locate a claim and possibly sell it?

A. No; not locate a claim.

Q. Did you mean when you used the word “value”—

A. A commercial value as an oil proposition.

Q. Oil could be produced in paying quantities?

A. No.

Q. Then you used the word "value" having some other definition in mind, did you?

A. I used it as having a value as oil land,—having a commercial value as an oil property.

Mr. Mills—I object to this and submit that the question has been fully answered by the witness twice.

Mr. Lewers—It is not answered yet.

Q. Did you mean when you used the word "value" in that [603] connection at page 1353, that it contained oil enough to add to its richness?

A. I believed it did.

Q. Did you know that it did?

A. No; I did not know that it did. That was my opinion as a geologist.

Q. Could you determine in any way that it contained sufficient oil to add to its richness? That is, that the oil could be extracted at a profit of even one mill on a thousand tons?

A. That cannot be determined.

Q. And when you used the word "value" you didn't mean that?

A. I meant it had value as oil land.

Q. Now, Mr. Veatch, haven't you known a great many lode claims to sell at quite a considerable price per acre that did not have a blessed thing in them?

A. I think that statement is probably true, but

lode mining and oil mining are entirely different things. There is a much greater certainty in a petroleum proposition than there is in any lode mining, as Dr. Branner said, and I agree with him perfectly where he regards coal mining and oil mining the most certain forms of mining. As I explained the other day, I do not regard any business proposition as a certainty.

Q. Then when you all the way through your testimony speak of this being proven oil land or valuable oil land, you nowhere mean to be understood as saying that there is sufficient oil there that it can be extracted with profit?

A. No; I mean that a man would be justified in buying that, perhaps, and paying an enhanced value because of its oil value, and spending money in developing it.

Q. Let me ask you this question: Suppose that you had in the vicinity of a proven oil territory—say near Coalinga—[604] in a section of land in which there was a paying well, and within three-quarters of a mile or less than a mile of that paying well in a formation which was favorable for the accumulation of oil, an oil spring from which there seeped a few drops of oil or petroleum, and the general surrounding geological formation was such as scientific research and practical experience had shown to be likely to yield oil in paying quantities: Would you pronounce that ground or claim where this oil spring was situated, oil land?

A. See if I get your question perfectly. You want to know whether I would consider the land on which the seepage is situated, down the dip from which there is a commercial well, as oil land?

Q. Yes.

A. I would not, on just the simple statement that you make.

Q. Why not?

A. Your seepage is at the point, I assume from your question—it is at the point where the beds come to the surface, and you would then—

Q. No; I have not stated that the beds come to the surface. I said there was an oil spring.

A. I asked you the question if it was down the dip from the spring, and you said it was.

Q. I misunderstood you then. Take the statement as I have given: That there was an oil seepage shown in the land, that the formation was favorable to the development of oil according to scientific research and experience, and that it is within a mile of a paying well, and apparently situated in the same formations.

A. I would have to examine the ground in order to answer that question intelligently.

Q. Are you able to state? [605]

A. It would be possible to have good ground there, and it would also be possible to have ground no good.

Q. Would you from that statement call that oil land?

A. No; I would have to examine the ground. I believe after I examined the ground that I could give you an opinion that would be worth something.

Whereupon the further taking of testimony herein was adjourned until 2:30 o'clock P. M. at the same place.

On Monday, May 13, 1912, at 2:30 o'clock P. M. the further taking of testimony herein was resumed.

By Mr. Lewers:

Q. Suppose that you discovered at the point where this oil spring was, indications of an anticlinal structure, and with favorable indications as to the possibility of the accumulation of oil in case oil were underneath, and all the other conditions remained as I have given. Would you call that valuable oil land?

A. The seepage is on top of the anticline?

Q. Yes; or near the top.

A. And the anticline is not broken?

Q. So far as appears on the surface, no.

A. That is, you restrict that to a definite locality and not to a general proposition?

Q. The question was whether the land where that oil seep was situated and in the vicinity thereof would be called valuable oil land?

A. I would have to examine it to give you an opinion.

Q. Then from the data which I have given you in my question you would be unable to give an opinion as to whether it was val [606] uable oil land?

A. Supposing that your data was absolutely com-

plete, I could give you an opinion. That is, if I would have knowledge of the persistence of porous beds in that region. Can you give me any information?

Q. I have stated that the situation was such that the structure and formation was such that competent, experienced geologists would say that it was favorable for the production of oil in paying quantities at that point.

A. I would have to see the land to give you an opinion.

Q. Then you would not be willing with that amount of information to say that that was valuable oil land?

A. Not unless I checked it myself.

Q. You would necessarily have to check every item that went into the determination of the character of that land for oil values, wouldn't you?

A. That would depend on who was the authority for your statement as to the character of the beds.

Q. I am assuming in my question that it is established by the most competent authority that the structure of the formation is suitable for the storage of oil, and that the nature of the formation indicates that it is favorable for the production of oil in paying quantities.

Mr. Mills—I object to any further cross-examination of a purely speculative character concerning which there is no relation either obvious or apparent to the issues involved in this case.

A. I can answer that directly with regard to the

Elk Hills. There is an anticlinal structure there. There is a seepage.

Q. By Mr. Lewers—I didn't ask you about the Elk Hills, and will you kindly answer my questions and not one that you frame yourself? [607]

A. I can answer it if you will assure me that the conditions are absolutely the same as in the Elk Hills,—making it absolutely parallel to the conditions existing in the Elk Hills.

Q. That is, you are not able to pass any opinion that is not identical with the conditions in the Elk Hills?

A. Not at all. But the conditions that you have mentioned seem to me analagous to the conditions of the Elk Hills, and I merely want to make sure that they are.

Q. Taking just the conditions as I have given them to you, are you able with the data which are contained in my question, assuming that it is all absolutely proven, to determine whether that land in the vicinity of that oil spring is valuable oil land or not?

A. I would have to see it.

Q. You could not determine it from the data contained in my question.

A. I could determine it from complete data.

Q. Answer my question. You cannot determine it from the data which I gave you?

A. I say yes, if the conditions are the same as in the Elk Hills.

Q. That is, you would—

A. I know the conditions in the Elk Hills.

Q. That is, you want something additional to what I have stated in order to determine its mineral value?

A. I explained that.

Q. Answer my question. I don't care for the explanation till I get an answer.

A. I would say that I can answer it if the conditions are the same as in the Elk Hills, namely, that you have an anticlinal structure—

Q. Mr. Veatch, I have given you the conditions and I am not [608] proposing any other conditions, and I am not comparing it with the Elk Hills. I am asking you merely this question: With the information and data which I furnished you in those questions, and without additional information and data, can you answer that question as to its oil value?

A. I think I could answer that question.

Q. What is your answer as to its oil value with that data alone?

A. I am not at all sure of the data. You assume that the data are correct. I don't know that they are correct.

Q. But we are assuming that it is correct for the purposes of this question. Now, can you answer it?

A. I can say that taking the conditions which existed in the Elk Hills, which I think are similar to the ones that you frame, namely, that there is a dome-shaped anticlinal fold upon which there is

evidence of a seepage where the beds are slightly cracked, no great faulting, and where in the adjoining region you have a long line of outcropping with seepages and with wells proving the character of the land, I should say that that is oil land.

Q. Mr. Veatch, is it impossible for you in this instance to maintain that necessary control over your mental faculties that will disassociate my statement of facts from any additional facts that you may have in mind concerning the Elk Hills?

Mr. Mills—I object to that question and any further question of that kind because the witness has endeavored repeatedly to give you an answer to your question. Moreover, the questions are wholly irrelevant to any issues in this case, and I insist that counsel shall keep within the issues.

Mr. Lewers—I shall keep after this question till I get an answer one way or the other to my question.

A. You assume—let me get this straight. You assume [609] conditions existing at a given locality which I know nothing about. If you ask me a purely hypothetical question without reference to any locality which I have not examined, I can inform you whether the criteria are sufficient.

Q. Now, can you state whether, assuming the conditions which I have outlined in my question are absolutely true, and disassociating those conditions from anything in the Elk Hills, so far as adding any additional data, can you say whether upon the information contained in my question that land was valuable oil land or not?

A. How persistent are the porous beds in your question?

Q. Take my question just as it stands.

Mr. Mills—You had better read the question.

(Question beginning on line 12 page 1530 was read by the reporter.)

A. I would have to have more information.

Q. By Mr. Lewers—Then with that information contained in the question you are unable to determine whether it is oil land or not?

A. Yes; for the reason that I don't know what may be in your mind when you say competent oil men would say that would be good territory.

Q. Then it is necessary, is it not, Mr. Veatch, before you can determine even what you designate as the oil value of land, to have more data than merely seepages and surface structure?

A. No, I think not.

Q. Then you are unwilling to venture any opinion except as to the Elk Hills?

A. No; I said if you would state the conditions fully. I ask for a fuller statement of the conditions, and you referred me to your original question which I think is not complete. [610] I cannot predicate an answer on any incomplete state of facts.

Q. Now, you testified that the safety of the conclusion which might be reached by the geologist from the data which you took into consideration depended solely upon the accuracy of the observations. Is that correct?

A. I think that is a large factor.

Q. Does it not depend also very largely upon what he sees?

A. It certainly does; the accuracy of his observations.

Q. However accurate his observations may be, his data may not be sufficient?

A. That is possible.

Q. Now, did you determine from your own investigations in what formation the oil originates in the Devil's Den District to the northwest of McKittrick?

A. No.

Q. Did you determine in what formation the oil originates in the Temblor District to the northwest of McKittrick?

A. No.

Q. Did you determine in what formation the oil originates in the McKittrick District?

A. I believe that it comes from the diatomaceous beds—

Q. I didn't ask you what you believe. Did you determine from any observation of your own?

A. I did not prove it. I think it is a fair deduction. I think no one has proven it.

Q. It comes from what?

A. It is a deduction.

Q. What formation did you say it came from?

A. Diatomaceous shales.

Q. What period?

A. It makes no difference what the period is.

Q. That may be, but I want to know what period it comes from. [611]

A. It comes from the diatomaceous shales, in my opinion, that lie west from McKittrick.

Q. But of what period?

A. I think that makes no difference, and I made no determination of the age. There is a series of diatomaceous beds. The conditions with reference to the accumulation of oil would be the same regardless of the age of that bed.

Q. Did you make any determination as to which formation originated the oil southeast of McKittrick District—in the Midway?

A. Yes; I think the diatomaceous shales there also are responsible.

Q. Of what period?

A. The same as in the McKittrick region.

Q. Which period?

A. It is the diatomaceous shales which underlie the oil-beds containing the sands.

Q. But which period?

A. I have stated that makes no difference. We have there in the Temblor Range a series of diatomaceous shales. The age of those diatomaceous shales is of no particular economic importance in the determination of the oil value of lands in that region. Above that diatomaceous series there lies a series of porous beds. The age of those beds that overlie it is immaterial. They are younger than the diatomaceous shales.

Q. Your opinion on that matter is likewise immaterial to me. I want to know if you determined, immaterial or not, what formation at McKittrick originated the oil?

A. The diatomaceous shales, I believe.

Q. Of which period?

A. I did not determine the period. It is, as I say, of no special economic bearing. [612]

Q. You did not determine the period?

A. I did not.

Q. And you did not determine the period at any other place?

A. No.

Q. Did you find anything which you determined belonged to what is known as the Vaqueros formation?

A. I found certain beds which have been correlated with the Vaqueros.

Q. And did you find certain beds which have been termed Monterey beds?

A. Yes.

Q. And Santa Margarita beds?

A. No; I found none. I think the correlation of the Santa Margarita is doubtful. But that is mere opinion. The outlines of the geology there in the way to affect the economic factors involved—

Q. Answer my questions and do not volunteer.

Mr. Mills—Let him finish his answer.

Mr. Lewers—He wants to make a legal argument.

A. I am merely explaining it from a purely scien-

tific standpoint. In the Temblor Range there is a series of porous beds which have sometimes been called the Vaqueros. Whether they are Vaqueros or not is a matter of scientific correlation on which there might be differences of opinion. But, whatever they may be called, there is this first member of porous beds. Above that there is a series of diatomaceous shales which may or may not represent the Monterey as it is correlated at other places. Above that is a third member of porous beds. Now, the ages of those have no special economic importance. It is this diatomaceous shale which probably yields the oil. It has the overlying and underlying porous beds which afford a reservoir. [613]

Mr. Lewers—Now, I move that the entire latter portion of the answer be stricken out as not responsive.

Q. Mr. Veatch, does the oil producing diatomaceous shale in the Temblor District lie in a Monterey formation or in some other formation?

A. I don't know.

Q. You made no effort to determine?

A. No.

Q. You regarded that as unimportant?

A. Yes.

Q. And is it not a fact that the oil formation in the Temblor District is in the Vaqueros sandstone?

A. I don't know that. I think that it lies in the lower member of these three that I mentioned. You can call them any name you please. If you mean by

your name "Vaqueros" that lower porous bed, I say yes. It is a matter of correlation, as you apply the names. Scientists often discuss the matter at great length without materially changing the actual sequence. It is simply a quibble over names.

Q. Let us take Mr. Arnold's classification contained in Bulletin No. 406. Have you that before you? Is it or is it not a fact that in the Temblor District the oil migrated downward or upward?

A. From what I have read I should say they migrated into the porous beds underlying the diatomaceous shales.

Q. Underlying the Vaqueros or on top of the Vaqueros?

A. I am simply talking about the sequence of beds; not by formation names. The correlation of the Vaqueros involves a large amount of field work, and I am not prepared to say whether that is or is not Vaqueros.

Q. Then you don't know whether the oil migrated downward into the formation underlying the Vaqueros or into the formation [614] overlying it?

A. It migrated in both directions. It is in the beds underlying the diatomaceous shales, and also the ones overlying them.

Q. Did you determine that they migrated upwards in the Temblor District—

A. I said I had not been in that district.

Q. As a matter of fact, you don't know, do you?

A. No.

Q. You don't know whether the oil source in the Temblor District was from the lower Vaqueros, the lower Monterey or the upper Monterey, do you?

A. If you will specify that in what natural sequence of beds they are, and leave out the question of names, I think I can express an opinion. It is simply a sequence of beds there, and the question of names which you have involved in the technical description, has no economic bearing.

Q. Is there the same sequence of beds in the Temblor District and in the McKittrick District?

A. I say yes, that general sequence is there. A porous bed below the diatomaceous shales, and a porous bed above the diatomaceous shales. There is also some lower beds I understand.

Q. Wouldn't it be of some importance to you as a geologist to know whether or not the oil shales producing the oil lie underneath the Vaqueros or on top of the Monterey in determining the economic value of any particular piece of land under which those two formations occur?

A. I should say not directly so. For this reason: That in a great many oil accumulations your oil is not in the bed in contact with the source itself,—an entirely different bed—and it is a matter of determination of the persistence and character of this porous layer. The porous layer involved here is the one that lies above a series of diatomaceous shales. [615] Whether they are or are not the source of the oil bears only indirectly on it. I think the fact that they

probably are the sources of the oil makes this all the more valuable territory.

Q. Then you did not determine what was the source of the oil at McKittrick?

A. No. I think no one has determined that. It is a matter of belief with me that it comes from those diatomaceous shales.

Q. Would it be a matter of any consequence with you whatever in your conclusions about the Elk Hills, whether the producing formation lay immediately in the overlying McKittrick or was buried under immense thicknesses of shale of an earlier period below?

A. An earlier period than what?

Q. The McKittrick?

A. I have not said it was in the McKittrick. It was in the upper porous layer. If you will refer to it by using that name, I will answer you.

Q. If you will listen to my question: Does it make any difference to you in reaching a determination in what you call the oil value of the Elk Hills whether the diatomaceous shales producing the oil immediately underlies the McKittrick formation or were buried still deeper under an immense thickness of shales of another formation?

A. What do you mean by the McKittrick formation?

Q. Are you not familiar with what is meant by the McKittrick formation?

A. Scientists may differ as to just what "McKit-

trick" includes. And I want to know what you mean by McKittrick.

Q. In these questions I am basing my questions on Mr. Arnold's classification.

A. If Mr. Arnold includes—and that I am not entirely sure [616] of from his paper—all the porous beds above the diatomaceous shales in the McKittrick, I should say that I understand that. But if as indicated probably by his separation of the Santa Margarita with a question-mark, in which there is some porous beds, I would include all those porous beds together in my porous layer over the diatomaceous shales. It may be that Arnold intended to exclude from his McKittrick those porous beds which you might call Santa Margarita. If he did, I am using "McKittrick" in a larger sense. I am using it for the topmost of this simple three-part series of the formation in that region.

Q. Now, coming back to your horizon theory. Would it make any difference in your conclusion as to the extent of that horizon if at one end of your outcrop the oil-producing shales belonged to an older formation—say the Tejon formation—and a few miles away the oil-producing shale belonged to a later formation—the Vaqueros; and a few miles away on the same outcrop the oil-producing shale belonged to the Monterey; and these various formations from the indications on the outcrop were each of considerable thickness?

A. I should be unable to answer your question

because I don't know what you mean by "formation." There are various scientific meanings to the word "formation."

Q. Then when I refer to the Monterey formation or to the Tejon formation or to the Vaqueros formation, and I explain to you that I am using those terms on the basis of Mr. Arnold's classification, you don't know what I mean?

A. I will ask you if you use them in their time significance or their formation significance?

Q. I am using them in either significance that you desire.

A. If you use them in the formation significance, all the formations which you mention would be one formation; a formation may go over several periods.

[617]

Q. You have made no mistake in that answer?

A. None whatever.

Q. You are perfectly satisfied with it?

A. Yes.

Q. Then if it is used in what you call the formation significance—

A. With some scientists.

Q. —the horizon rule still applies?

A. The horizon rule relates to the porous beds only.

Q. If you had at the Temblor Range an oil-producing shale, an oil-originating shale, in the Vaqueros formation, would you conclude that it would occupy the same plane of horizon in its extensions

underneath the surrounding country as the oil-originating shale in the later Monterey, 20 miles to the south along the Temblor Range?

A. The question is difficult to answer because I don't know what you mean by Vaqueros formation. Do you mean the porous beds below the diatomaceous shales?

Q. I have explained to you, and I am surprised that you do not understand me, Mr. Veatch, that by Vaqueros formation I am using exactly the classification of those formations made by Ralph Arnold. Do you understand his classification?

A. I can't say that I do fully. I have not gone through his report with minute care to work out the refined questions of formation names. The main stratigraphy of this region appeals to me as being very simple, and so far as relates to the economic problems, as I explained before, it consists of three parts: The porous beds below, a great thickness of diatomaceous shales which I regard as probably the source of the oil, and a great series of porous beds above. Now, the oil produced in these diatomaceous shales may accumulate in the porous beds below and may accumulate in the porous beds above. [618]

Q. Then if you don't understand Mr. Arnold's classification, let me ask you this question: Is the surface formation at the Temblor Ranch of the same age as the surface formation in the Elk Hills?

A. I don't know.

Q. Is it not a fact that it is a very much earlier age?

A. I made no examination of that region in connection with an examination to determine the value of the Elk Hills, but I can say that I believe that the oil at the Temblor Range, comes from porous beds below this diatomaceous shale series, but I state that simply on information.

Q. You have stated that at numerous times. Can you state from your examination or any information that you have that the oil-producing shales which you find at the Temblor Ranch are of the same age as the oil-producing shales at McKittrick?

A. I should say not, though they probably apply to the same period of time.

Q. That is, they probably belong to the Tertiary, you mean, or do they?

A. I think they do. They may be cretaceous. The matter of whether they are cretaceous or Tertiary, or whether the Monterey shale is cretaceous or Tertiary, makes no difference in the economic conclusion reached.

Q. Suppose that the oil-producing shales at the Temblor Ranch belong to the lower Vaqueros, an earlier formation according to Mr. Arnold's classification than the Monterey, and suppose that that formation which contained the oil was laid down by sedimentation over a large area, extending down beyond the Elk Hills, in the Temblor Ranch, and suppose that later on there were deposited large beds through thousands and thousands of years of the Vaqueros, and then of the Santa Margarita—not of the Santa

Margarita—then of the Monterey, and that in [619] this later Monterey deposit there again occurs a bed of diatomaceous oil-producing shale: Would the same well that tapped the oil shale in the lower Vaqueros drain this other oil shale in the Monterey?

A. You have not explained what portion of the Vaqueros, if at all, this is in. If the Vaqueros is above the sandstone, this shale would belong to something else. Is the Vaqueros a time significance or a formation significance?

Q. The lower shales of the Vaqueros formation—a time significance.

A. You have below the three-part series here another shale?

Q. Yes.

A. I should not say that that shale would affect the upper member of the series, except under very unusual conditions.

Q. Then you have two separate oil sands, one lying above the other, wouldn't you?

A. Yes.

Q. Now, if those should be tilted so that up at the Temblor Ranch the lower one came to the surface and down at the Elk Hills or the McKittrick, I mean, the higher one came to the surface, so that their outcrop was on the same general level, would your oil zone theory apply?

A. With reference to what?

Q. Both of them. Could you lump them together in one determination?

A. You would determine on each sand. You are assuming as a proven fact that the oil comes from these shales. I think that is probably true; but the thing that we are dealing with is the extent and persistence of certain porous beds which are the commercial containers of the oil. If you take at the Temblor Ranch an outcrop of porous sand and you trace that porous sand with a certain persistence, and you find [620] that it shows oil springs all along, you would use the same method there and would apply the same method. But when you get up to the upper porous beds, you are dealing with an entirely different porous series. There would be the persistence of that porous series and the oil contents as shown by the oil seepages and springs and the wells drilled prior to a given date, if you want to determine the conclusion which would be reached at a given time.

Q. Then you would have to deal with each period of oil shales by itself?

A. I am dealing only with the containing sands.

Q. Dealing only with the reservoir?

A. Yes.

Q. I am asking you with reference to the oil-producing shales.

A. What do you wish to know about the shales?

Q. This is what I wish to know: If you find indications of oil-producing shales along a distance in line for twenty-five or thirty miles, can you conclude from that that at a distance of fifteen miles to

the side that the same bed of oil-producing shale is existent?

A. It would depend on the stratigraphic conditions which exist there. I should say, taking an application to this matter, that you have this diatomaceous series exposed for many miles along the Temblor Range, and that in my opinion it certainly underlies the Elk Hills.

Q. Now, Mr. Veatch, basing your answer upon all you have read, all you have seen, all that you have heard, will you tell me what is underneath the Elk Hills?

A. I think there is a series of porous beds of this Tertiary class which marks the upper portion of the series; but below that there is a series of diatomaceous beds, and below [621] that there is a series of limestone and amorphous sediments which probably belong to the cretaceous and below that probably granite.

Q. Do you know that?

A. You asked me what I believe.

Q. Do you know it, I ask you now?

A. I believe that it is there.

Q. Do you know it?

A. It is a question of how you define "know."

Q. How thick is the overlying McKittrick formation? I am using that term as Mr. Arnold used it in the Elk Hills.

A. I can't answer that because I am not exactly sure what he means by the word "McKittrick." If

you will explain exactly what you mean, I can answer you.

Q. I suggest we take a recess to enable Mr. Veatch to look over Mr. Arnold's book to understand the terms.

Mr. Mills—I would suggest that counsel during the recess occupy his mind by defining exactly what Mr. Arnold means, so that he can intelligently interrogate the witness.

Mr. Lewers—I think I have a very good understanding.

Q. Then you don't understand Mr. Arnold's classification, do you?

A. I am not entirely sure regarding certain of his correlations. It involves a definition of formation names, and the matter of formation names, it is notorious, different people can disagree on. If we get down to the simple question of what the sequence is here, without the question of names,—but call it one, two, three—there would be no room for doubt.

Q. Now, Mr. Veatch, where did you at any point opposite the Elk Hills find any outcrop of diatomaceous shales?

A. I think a number in the McKittrick uplift there.

Q. Is the McKittrick uplift opposite the Elk Hills?

A. I should think so. [622]

Q. Is not the McKittrick uplift to the northwest of the Elk Hills?

A. Just what do you mean by "opposite"?

Q. Take the axis of the Elk Hills and run a line parallel to that axis. Will it strike anywhere near McKittrick from the center of that axis?

A. Take the axis of the Elk Hills and run a line parallel to it? You can get an infinite number of parallel lines to it.

Q. Perpendicular.

A. From what point?

Q. From the center of the axis of the Elk Hills.

A. You mean from the center of the Elk Hills? The central point on the axis of the Elk Hills?

Q. Yes.

A. It will strike somewhere near Midway.

Q. Did you find any outcrop of diatomaceous shale near Midway?

A. I think there are in the hills there.

Q. Did you find any?

A. Yes; I was in there. To say positively that there was diatomaceous shale, would require a microscopic observation.

Q. Did you make any?

A. I did not.

Q. Then you don't know whether there is diatomaceous shale there or not?

A. No.

Q. Did you find any diatomaceous shale at McKittrick?

A. What I believed to be.

Q. Did you make any test to determine whether it was or not?

A. No.

Q. Then you don't know whether it was or not?
[623]

A. No.

Q. Didn't it occur to you that in reaching a determination as to the thickness of the outcrop and the character of the shales that a microscopic examination might have some bearing?

A. It would have nothing to do with the thickness of the outcrop.

Q. Did it not occur to you that it might have something to do with the character of the outcrop?

A. No; the character of the outcrop would be the same, whether you made a microscopic examination or not.

Q. You wouldn't know what it was?

A. I might suspect it with a hand lens. I wouldn't know it positively.

Q. Did you suspect it?

A. I think so.

Q. Did you look at it with a hand lens?

A. Yes sir.

Q. And concluded that it was a diatomaceous bed?

A. That was my feeling.

Q. How thick was it?

A. Do you mean the whole series, or at McKittrick, or in the range or where?

Q. From McKittrick southeast.

A. I simply drove into the hills there to get a

general idea of the thickness, and my impression from the sections that I saw was that it was in excess of three thousand feet. I didn't think it was necessary to make a detailed section to determine exactly what the thickness was. I have measured a great many sections and think that I can estimate the thickness without making a detailed observation to approximate the thickness within a reasonable degree.

Q. And you did approximate it to be three thousand feet? [624]

A. Yes; I thought it was in excess of three thousand feet.

Q. What was the direction of the dip?

A. The Temblor Range is badly folded. There are different sections dipping east, different sections dipping west. But taking those sections that were exposed, that was my opinion regarding the general thickness of the series.

Q. I asked what was the dip.

A. I said it was very variable.

Q. Was the dip toward the Elk Hills or away from them?

A. At what point?

Q. At any point along the Temblor Range opposite the Elk Hills.

A. In general it is dipping toward the Elk Hills.

Q. At what angle?

A. It is quite variable. I should say it runs from 10 to 60 degrees.

Q. Did you make any determination of the thickness of the formation overlying this three thousand feet of shale that you found?

A. Yes.

Q. What did you approximate that to be?

A. I thought it was over three thousand feet. Certainly over twenty-five hundred feet.

Q. Now, if that same relative condition continued under the Elk Hills, and if the diatomaceous shale producing the oil is on the lower portion of that shale formation, it would be over six thousand feet below the surface, wouldn't it?

A. Assuming your assumptions to be correct.

Q. Did you make any determination at that time when you placed yourself in the attitude of a man in 1904 as to how deep that man of 1904 would have his client to sink a well?

A. My belief is that it would be over three thousand feet. [625]

Q. And he would be still three thousand feet above the oil if it was in the underlying portions of the shale formation?

A. The oil reservoir is not in the shale, as I have explained repeatedly. I would not advise him to drill for the shale. It is in the porous beds overlying the shale.

Q. If it is originated in the shale at the bottom of that 3000-foot section, how would it get into the sands on top of that 3000-foot section?

A. Is that a purely hypothetical question?

Q. I think this is all hypothetical.

A. Just as a matter of hypothesis, if you have a source which is separated from a reservoir by a thickness of bed, the oil could migrate into the porous beds by a faulty condition of the overlying beds. It could migrate into the porous beds by the overlap of the edge of the porous beds onto the lower beds of the series. There are a number of ways in which it could reach that.

Q. Do you know from your observations whether that formation underlying the Elk Hills is faulted?

A. No, but I suspect that there may be minor faults in it.

Q. That is merely suspicion?

A. Based on the general stratigraphy of the condition. I am referring now only to the diatomaceous shales. I do not believe that the porous beds are faulted—the oil reservoir.

Q. You have no way, have you in advance of drilling, to determine the conditions of the underlying shales?

A. You can have an idea of it which I think would be worthy of some consideration by the general geologic conditions of the country. The geologic history of the region would lead you to form certain conclusions.

Q. Do you agree with the theory of Mr. W. E. Youle that the overlying or surface formation near the outcrop at McKittrick is [626] much thinner than it is to the northeast of McKittrick?

A. The northeast is a very general feature. But taking near the outcrop of the McKittrick, you would have the McKittrick starting at nothing and gradually increasing in thickness. Now, taking the point where it is nothing, or a thousand feet, would certainly be less than where it is in bed.

Q. How would you determine that this overlying formation which Mr. Arnold has called McKittrick is three thousand feet thick?

A. By the sections along the southeast of McKittrick.

Q. Have you made any sketch of those sections?

A. No.

Q. Have you made any statement of those sections to show what they are composed of or where they are?

A. Yes; I have a field map that I made at the time.

Q. Now, suppose that instead of the oil being derived from any portion of that shale outcrop which you saw near McKittrick, it were derived from an older and underlying formation. That would add to the distance, would it not, through which the oil would have to percolate to get into the sand beds within reach in the Elk Hills?

A. Yes.

Q. Did you determine whether the oil formation—I mean by that the oil-producing diatomaceous shales—lay in that bed which you estimated was three thousand feet deep, or whether it lay below that?

A. No; I did not.

Q. Could you so determine?

A. Assuming in the first place that the oil comes from the diatomaceous shale, I believe that is correct, and I should say from that that it would come from the whole series of diatomaceous shales. And your whole thickness then would be the source [627] of the oil. The matter involved here is the persistent character of this porous bed.

Q. Then I take it, Mr. Veatch, that you don't know from having seen it anywhere on the ground, what Mr. Arnold calls Monterey shales?

A. I have seen a great many diatomaceous shales there.

Q. Do you know what Mr. Arnold calls diatomaceous shales?

A. I have seen some beds that he has mapped as diatomaceous shales.

Q. Is all diatomaceous shale oil-producing?

A. I do not know that it is.

Q. You know that it is not, don't you?

A. I can imagine conditions.

Q. Under what conditions will diatomaceous shale not produce oil?

A. I don't know. I wish I did.

Q. It is a very common thing to find diatomaceous shale closely resembling what Mr. Arnold calls diatomaceous shale that does not produce oil, is it not?

A. I cannot say that it is a common thing.

Q. Do you know of any instance where such shale occurs that has not produced oil?

A. Not of my own knowledge. I know that there are diatomaceous beds in a great many formations which are not producing oil.

Q. Now, suppose that you had a bed of shale which you claim to be of the thickness which you estimated this shale to be, 3000 feet. Is that shale in the absence of crushing or fracturing pervious for oil through its entire thickness?

A. It might be

Q. Is it ordinarily so?

A. You mean the shales absolutely the same as this material [628] in the hills of McKittrick?

Q. Yes.

A. Portions of that are very porous or pervious, I think. There may be portions that are not.

Q. Are there not laminations or layers, if you want to put it that way, occurring in the deposit of shale of that kind that are very hard?

A. They may be very hard and still be pervious.

Q. And they may be hard and impervious?

A. Yes sir.

Q. And they might be soft and still be impervious?

A. Yes. That is, relatively impervious.

Q. Then you would find it necessary, would you not, before you can determine that at a given point or in a given area there existed oil in appreciable quantities, that you have, first, shales which produce oil and, second, a reservoir of some kind connected with those shales in which the oil would pass?

A. Not universally, at all.

Q. What other conditions would you have?

A. You assume that all the oils come from shales, which I am not at all sure is true. You frequently have large oil pools on different parts of the world which are not connected with diatomaceous shale, and in which the source of the oil is very obscure, and in which the economic factors are the determination of the persistence of the porous beds.

Q. I am referring to California and, particularly, to the McKittrick district. Can you answer the question in connection with that?

A. Believing as I do that the oil here is derived from those diatomaceous shales, the thickness of the shales is a measure, in one way, for reaching a conclusion—or a factor, I should say, in reaching a conclusion regarding the oil value [629] of the land. In that respect the very great thickness of the diatomaceous shales of this locality is of special importance, assuming as you do that they are the source of the oil.

Q. And assuming also that the entire thickness of the shales produces oil?

A. I think so. It would be most difficult from a scientific standpoint to disprove that any portion did produce oil.

Q. Now, Mr. Veatch, one of the essentials would be some thickness of diatomaceous oil-producing shale, would it not?

A. Under the land or in the neighborhood of the land?

Q. Somewhere.

A. Yes, if the shale is the source of the oil.

Q. Assuming that the shale is the source of the oil, have you determined whether or not underneath the region where the Elk Hills are situated that shale does actually exist?

A. I should say yes, from a geological standpoint.

Q. And you base that opinion upon the fact that you find it over by the Temblor Range?

A. I base it on the persistence of that diatomaceous shale over wide areas, and the geologic conditions so far as you can fix them under which that was deposited. It is inconceivable to me to believe that this shale stops abruptly at that 3000-foot thickness and does not pass under the Elk Hills.

Q. Did you find it anywhere else except at the Temblor Range?

A. It runs along the whole flank there down toward Sunset, and I understand goes beyond and passes around the east side of the valley.

Q. Now, Mr. Veatch, did you find any of that shale except near the Temblor Range?

A. Yes.

Q. Where? [630]

A. There are fragments of it all over the Elk Hills.

Q. Pebbles?

A. Yes.

Q. Indicating erosions?

A. Yes.

Q. Did you find any of it in place in the Elk Hills?

A. No.

Q. Or any indications?

A. No.

Q. Now, referring to plate 1 accompanying Mr. Arnold's Bulletin No. 406, you find areas within a short distance from McKittrick to the northwest of McKittrick where the surface formation is of a very much earlier period than these shales which you found, don't you?

A. About eight miles northwest of McKittrick there is an exposure of the underlying bed.

Q. What does that indicate to you as to the history of that country, in that particular spot?

A. It gives me an idea of the sequence of beds and a sequence of formations there which will underlie the Elk Hills.

Q. Why is it that at that point the earlier formation is on the surface?

A. Because of the character of the uplift or erosion.

Q. That is, uplift or erosion, or the two combined?

A. The two combined.

Q. Have you any reason to say, assuming that wide area of this shale were laid down by sedimentation under the whole territory where the Elk Hills are, that there was no erosion there?

A. I should say that there would not be an erosion of the magnitude shown northwest of McKittrick.

Q. Why not?

A. Because that does not lie along the line of greatest [631] uplift. That lies over in the area in which there has been less uplifted and much less erosion.

Q. How many uplifts have there been in that country?

A. I don't know.

Q. Do you not know from your reading that there have been at least four?

A. It is possible.

Q. Is it not possible that there was, before the laying down of the later sedimentation now forming the surface of the McKittrick Hills, a very extensive erosion of the shale beds lying under what is now the Elk Hills?

A. There were possibly erosions. I should not say that it was profound erosion. It would probably be minor erosions. The lines of weakness, that is, the lines of uplifting which were done when this land first came above the surface, have persisted as the principal line of uplifting to this day, and, therefore, we would expect to believe that the greatest erosion would occur at the places which were most uplifted in the beginning of this cycle of uplifts.

Q. Can you tell with any degree of accuracy?

A. I think so.

Q. Can you say from your examination of this country or from any information that you have obtained from any source, that the shale beds that you

have assumed originally passed under where the Elk Hills are, have not been eroded through their entire thickness?

A. I think it is very improbable. I do not believe that they have.

Q. But, do you know?

A. Only by the general character of that country. I should say that it is not a good hypothesis.

Q. Taking the Temblor Ranch where the surface exposure, I [632] believe, was very much earlier formation,—what is called by Mr. Arnold the Knoxville-Chico formation—how do you explain the fact that that is at the surface, unless there has been at some time in the history of the country a very considerable erosion?

A. There is, I explained, in that region northwest of McKittrick—that is the earliest lines of weakness, where there has been more erosion than at other places because of the character of the folding. The higher the folding, the greater the erosion.

Q. Does the Temblor Ranch differ in any degree, so far as the line of folding is concerned, from the Elk Hills?

A. Yes; it is a higher uplift.

Q. That is, assuming that there is but one uplift?

A. No; I am assuming that that is the earlier uplift the main line of weakness there lies in a northeast and southwest direction.

Q. Now, suppose at the place where the Elk Hills are narrowest, owing to the natural process of

the folding, there was originally a very considerable fold, long before the time when the McKittrick formation was laid down as a sediment, and the ordinary processes of erosion went on for hundreds of thousands of years. Would it be at all unnatural that those uptilted shale beds would be eroded off down to the underlying Vaqueros and even lower?

A. I do not think that your assumption is sound.

Q. I don't care what you think. Answer my question.

A. I do not think that is probable.

Q. Answer my question.

A. Is it remotely possible, do you mean?

Q. Isn't it—not remotely possible—isn't it probable that if there had been a folding and uplift of those shale beds [633] composing what Mr. Arnold has called the Monterey shale, and then a long period of erosion, that that uplift of the shale bed would be eroded possibly through its entire thickness?

A. If we have a great uplift under the Elk Hills, that would be true. But I do not believe there was such an uplift.

Q. You were not there?

A. No.

Q. And you don't know how many uplifts there have been in that territory, do you?

A. I am simply giving you my opinion.

Q. And your opinion is how many uplifts?

A. I said I didn't know.

Q. Does any man know?

A. I think it can be determined.

Q. But you have not determined it?

A. No.

Q. Then you are not in a position to say that there was not such an uplift?

A. I don't say that I don't believe there was such an uplift.

Q. Are you in a position to determine that scientifically?

A. I think the information that I have would warrant the statement that there was not such an uplift—I mean an erosion.

Q. What would you say as to the possibility of that Monterey shale formation, if we call it such, underneath the McKittrick Hills, having been folded and completely turned over?

A. Underneath the McKittrick Hills?

Q. Yes,—putting the Vaqueros on top.

A. I would think that a geologist would have a very vivid imagination to suggest that.

Q. You heard Dr. Branner testify that that was a possibility, did you not?

A. Possibilities come in a matter of one in a thousand. [634] There is a possibility scientifically.

Q. And that is a scientific possibility?

A. You can make such an assumption. I simply say I do not believe that that happened.

Q. You heard Dr. Branner say that no man could safely say that it did not happen, in the absence of testing by drilling?

A. I do not understand that he made such a statement.

Q. If he did make that statement you would not agree with him?

A. The matter of absolute determination—

Q. The question is, would you agree with that statement if he did make it?

A. Agree with what statement?

Q. Read the former question. (The reporter reads the question on page 1564, line 22.)

A. I would say that a geologist would say that it probably did not happen and would probably have ample reason for believing it.

Q. You regard Dr. Branner as being a very eminent geologist?

A. Yes sir; I do indeed.

Q. Probably one of the most eminent geologists in the United States, if not the world?

A. Right.

Q. Did you make any determination—

A. If you will pardon me, I believe Dr. Branner stated that he believed there was a great thickness of diatomaceous shales beneath the Elk Hills.

Q. If you will pardon me, I think he did not. Did you make any determination to find out whether or not, if there is any of this diatomaceous shale under the Elk Hills, the stratum is standing on edge or is lying flat?

A. No. [635]

Q. Then you don't know?

A. No. I think it is probable that it is slightly eroded underneath there or slightly faulted, all of which, if it were true, would make the Elk Hills all the better territory.

Q. And if not true it would make it all the worse?

A. No, because of the lateral movement of oil. Oil moves through the sand and frequently has moved over great distances in oil fields throughout the world.

Q. Then you have not been able to reach a determination as to either the actual thickness or as to the position of the underlying shale beds in the Elk Hills?

A. I stated that I had an opinion in regard to it.

Q. Have you reached a determination? Do you know how they lie there?

A. I believe they lie in certain positions.

Q. I am not interested in your belief. I want to know if you have determined how they do lie.

A. No.

Q. Do you know that there are any shale beds under there?

A. I think there are.

Q. Do you know?

A. I should say as a geologist, perhaps, yes.

Q. That you know there are shale beds there?

A. Yes.

Q. Where are they?

A. Beneath the Elk Hills.

Q. The entire Elk Hills?

A. I think so.

Q. How thick are they?

A. I don't know.

Q. What kind of shale are they?

A. I think they are diatomaceous shale. [636]

Q. Did you see any of that diatomaceous shale?

A. No.

Q. Is shale always diatomaceous?

A. No.

Q. Is shale diatomaceous over any considerable area when you find it diatomaceous at one point?

A. I should think this exposure running over a great many miles shows it has a very great extent.

Q. That is not my question. Is shale always diatomaceous over the entire bed when you find it diatomaceous at one point?

A. No.

Q. And shale, even if diatomaceous, is not always oil-producing?

A. No. You would assume that this is the source of the oil.

Q. Then we have to assume that in order to get any conclusion?

A. No.

Q. Do you know it is the source of the oil?

A. No; we do not have to assume it to arrive at any conclusion regarding the oil value of the Elk Hills.

Q. Even though we do not assume that somewhere or some place there is some oil-producing

shale, or was at some time, we still know there is some oil in the Elk Hills. Is that your position?

A. I say you do not have to know the source of the oil in a given region to determine the area which is oil land. Your basis is the persistence of the porous bed or reservoir and the geologic structure.

Q. Has it been your experience and observation that whenever you have a reservoir, you always have something in it?

A. No; the presence of oil in a reservoir must be shown [637] either by seepages or wells.

Q. If you have a tank-car standing on a side track and see traces of oil on the outside of it, and you are satisfied that it was a very suitable receptacle for the accumulation of oil, would you say there was oil in it?

Mr. Mills—I ask counsel whether he considers that question very material in this case?

Mr. Lewers—I consider it exactly in a par with those conclusions.

A. It is entirely different. It is absolutely absurd. And has absolutely no relation to your geologic conditions. Your reservoir in the case of oil is not a tank-car, and anyone knows that that knows anything about the matter.

Q. I also assume that the tank-car did carry oil.

Mr. Mills—I would like to ask counsel how long he intends to continue this cross-examination along the lines he started? I shall certainly object to any further cross-examination which I think is immaterial and irrelevant, and encumbering this record

with a vast amount of burdensome matter which has no relevancy whatever, and piling up the costs in this case.

Mr. Lewers—Well, you have registered your objection.

Q. Now, coming to your secondary proposition: Did you determine that there was under the Elk Hills a suitable reservoir for the accumulation of oil?

A. Yes sir; I believe there is.

Q. Did you determine that there was?

A. Geologically, yes.

Q. Do you know that there is?

A. I believe there is.

Q. You believe there is from a speculative point of view?

A. No; it is a matter of very careful scientific reasoning which shows that it is the case. [638]

Q. What is a suitable reservoir for oil?

A. You may have a porous sand; you may have a porous gravel; you may have a porous limestone or a porous sandstone or a porous conglomerate; porous granite under certain conditions would be a reservoir.

Q. Is there a porous sand under the Elk Hills?

A. I believe so.

Q. Do you know it?

A. I think I do.

Q. Have you seen it?

A. No.

Q. Is there a porous sandstone under there?

A. Quite probably.

Q. Have you ever seen it?

A. No.

Q. Is there a porous granite?

A. There might be at a great depth.

Q. Have you ever seen it?

A. No.

Q. And your statement that there is a porous medium of some kind is merely a deduction from external appearances?

A. Yes sir; and experience and knowledge regarding characteristics of beds and sedimentary strata.

Q. In California?

A. No; but experience anywhere else is applicable here on matters of stratigraphy.

Q. Then you would not agree with Mr. Youle that experience anywhere else is of no value in California?

A. His experience was in drilling for oil in Pennsylvania, which was restricted. It was not to a question of the geological determination. The matter of stratigraphic geology is the same wherever it is applied, and experience in one region— [639] all experience on stratigraphic geology—would have a bearing on the determination of stratigraphic geology in other places.

Q. Have you ever had any experience in lode mining?

A. No.

Q. Or had any experience in a lode mining country?

A. No; my whole experience has been with stratified deposits, in which it has been the problem to determine the persistence of coal beds and oil formations and water.

Q. Is it not a fact that prudent, careful, experienced and successful business men,—men experienced and successful in lode mining and in placer mining for gold—expend large sums of money in following up the advice given by competent and experienced mining geologists as to the occurrence of either the precious minerals or copper or lead?

A. They frequently do, but I should say that the matter of lode mining is entirely different from coal and oil.

Q. I didn't ask you that. I am asking you one question and you have answered it. And is it not a very common thing for prudent miners who have money to invest to employ expert geologists and mining engineers to determine where they shall carry on their mining work?

A. Yes.

Q. And is it not also a very common thing in their determination, directed by experienced, competent mining engineers, that they find nothing at all?

A. I should not say it is a very common thing.

Q. You have had no experience in copper mining?

A. No; I have stated I had no experience in that. But when you say an experienced and competent

geologist, you restrict your question very materially.

Q. Let us come to another thing. Is it not a very common thing when you have a mine, gold or silver or any other mine [640] for the metals, at a particular point, and another mine which has been proven, say a distance of half a mile or a mile away,—other mines in the vicinity, which are paying mines—with the surface indications, such as dikes, faults and so forth, favorable to the possible occurrence of fissure veins in other territory lying between these paying mines, to term that entire territory mineral ground?

Mr. Mills—I object to that question as obviously irrelevant. It concerns lode mining and has nothing to do with mining for petroleum.

A. I should say I don't know. I have had no experience in mining of that sort. But my best knowledge and belief is that it is an entirely different proposition from coal or oil or water.

Q. By Mr. Lewers—I didn't ask you that, Mr. Veatch. We will come to that. Is it not also true that very frequently land of that character lying between proven lode mines had a market value higher than its agricultural value by reason of its contiguity to the lode mines?

A. That is quite possible. But the fact would not be based upon the same line of evidence as the value of coal or oil.

Q. You are very anxious, are you not, Mr. Veatch, to bring in this comparison with coal and oil?

A. Not at all; but it seems to me we are dealing with coal and oil and you are asking questions in regard to subjects which are not akin from a geological standpoint.

Q. The important thing in connection with the development of oil in your mind is the oil reservoir, is it not?

A. Yes; and the geologic structure.

Q. Which ultimately would have received the oil from the producing shale?

A. Right. From an economic standpoint. [641]

Q. Now, does any difference occur to you between oil and coal in that respect?

A. Yes.

Q. What is the difference?

A. The coal is where it was deposited. That is, relatively to the surrounding beds. The oil has migrated into the sand, but the sand is where it was deposited just as is the coal. It is a matter of determining the persistence and character of that sand in which it is absolutely akin to coal.

Q. That is the clear line of distinction between coal deposits and oil deposits? That is, that coal deposits are where they are laid down and the oil deposits have moved?

A. Generally; yes sir.

Q. Now, the same thing is true with water, is it not?

A. Yes.

Q. Both water and oil are ambulatory, are they not?

A. By that, do you mean it walks?

Q. Yes, I mean walks.

A. I should not say they walk. I should say they move.

Q. When you get into an ambulance you don't walk.

A. These are not carried on anything.

Q. Oil is not ever carried on anything?

A. On an ambulance to the reservoir, the way we are discussing it.

Q. Isn't oil carried on water?

Mr. Mills—I would like to ask counsel what the proposition is—

Q. By Mr. Lewers—Isn't it carried by water?

A. Not always.

Q. Isn't it frequently so?

A. It is in some cases.

Q. And the location of that oil in some cases depends on [642] the action of the water, does it not?

A. Yes.

Q. And by reason of the presence of water in a formation that oil may be carried long distances from its source?

A. Yes sir.

Q. And if the source of that oil is not connected with these porous formations which serve as reservoirs, or if the water cannot get at it, it will not move, will it?

A. It may.

Q. Upward?

A. It may.

Q. Where does it usually go if not influenced by water?

A. It depends on the kind of material you are dealing with. If it is a natural porous bed—you see you are confusing the matter of the reservoir with the ultimate source.

Q. No, I am not.

A. The question relates to what?

Q. Take the oil from the time it starts from its origin, uninfluenced by water, where does it go?

A. It would go into the adjoining porous layers.

Q. Up or down?

A. Both.

Q. To what extent will it go up?

A. It may go up great distances.

Q. Uninfluenced by water?

A. Right.

Q. In the California oil fields have you ever found any indications of that?

A. No, I do not know that I have.

Q. Do you know whether in the Temblor fields it has gone up or down?

A. No. [643]

Q. Do you know whether in the McKittrick fields it has gone up or down?

A. Probably gone up; regarding the diatomaceous shales as the source, it certainly has gone up.

Q. Has water caused it to go up?

A. Not necessarily; it may have been in some cases an important factor.

Q. Water is usually regarded as the most important factor, is it not?

A. I don't know that it is.

Q. In the California oil fields is not water regarded as the most important factor?

A. I can't state that that is true.

Q. Do you know?

A. No.

Q. You don't pretend to be thoroughly familiar with oil conditions in California, do you?

A. No; I simply answer from the general standpoint.

Q. Did you determine whether or not under the Elk Hills water has had any influence on the movement of oil?

A. No.

Q. You read an affidavit, did you not, of a man named Love, preparatory to forming your opinion?

A. Yes.

Q. And that referred to a well in Section 11, 31-24, did it not?

A. Yes.

Q. And in that affidavit he stated, did he not, that a large flow of water was encountered at a depth of 260 feet?

A. Did he say a large flow or quantity?

Q. Quantity of water.

A. Yes. [644]

Q. And at about the same depth they noticed a few drops of what he regarded as oil rambling down the drill?

A. Yes; they obtained some oil there, he said.

Q. And went to a depth of over 500 feet and then quit?

A. Yes.

Q. And found no further oil below?

A. They had a large amount of gas.

Q. But found no further oil below, did they?

A. I don't remember that they did.

Q. Did that indicate to you in forming your conclusion that there was an oil deposit at a depth of 260 or '70 feet at that point?

A. No.

Q. What did it indicate to you?

A. It indicated that there had been a leakage of oil—indicated by seepages and wells at the Temblor Range, and would be an important factor in proving beyond a doubt the presence of oil beneath the Elk Hills.

Q. In commercial quantities?

A. I think it would indicate that it was in commercial quantities.

Q. That is, a few drops of oil on the drill 260 or 270 feet down would be an indication?

A. Yes; in connection with the geologic construction and the seepages and wells along the range, it shows that there is oil in the Elk Hills.

Q. And in commercial quantities?

A. In connection with the surrounding conditions, yes; I believe it does indicate that.

Q. These few drops at a depth of 260 or '70 feet

indicate in connection with the surrounding conditions oil in commercial quantities in the Elk Hills?

[645]

Mr. Mills—Just a moment. I think the record will show that the witness has answered that twice.

Mr. Lewers—Not a specific answer yet.

Mr. Mills—Yes, he has.

Q. By Mr. Lewers—I would like another answer.

Mr. Mills—I object to the witness answering the question more than twice.

A. Without that well, the geologic structure and conditions, the seepages and wells along the front of the range, are sufficient to show that that is oil land, and this simply corroborates that conclusion by showing the actual drops of oil.

Q. By Mr. Lewers—Then even without those drops of oil rambling down that drill, you would reach exactly the same conclusion?

A. To me, yes.

Q. Did the water have any significance to you in determining the value of the land?

A. No; that surface water is not connected with the problem in any way.

Q. What can surface water be used for?

A. It depends on the character of the water.

Q. Is it possible to use surface water for irrigation?

A. If it is there in sufficient quantities. The presence of water there in a well does not show the quantity of water.

Q. Doesn't that indicate that that land has some possible value for water?

A. I think not. The geologic structure is opposed to your idea in that regard.

Q. Even though considerable quantity of water was found in that well you would say that that would not add in any way to the value of the lands for water?

A. A considerable quantity? We don't know that a con- [646] siderable quantity was found.

Q. Have you that affidavit before you?

A. No; you have the affidavit.

Q. You have a copy. I have merely a copy.

A. I have not a copy of the affidavit.

Q. I have not the original.

A. That is all that I saw—what you have.

Mr. Mills—I suggest that counsel leave the affidavits with the Examiner so we can examine them.

Mr. Lewers—I am not through with them.

Mr. Mills—That doesn't make any difference.

Mr. Lewers—It does to me.

Mr. Mills—What is your purpose with those affidavits? Do you regard them as your personal property?

Mr. Lewers—Till I complete the cross-examination, yes.

Mr. Mills—I would like to know if you refuse to permit us to examine those affidavits at any time?

Mr. Lewers—No. I don't think you furnished me with all the affidavits that were used. I am satisfied of that.

Q. The affidavit states that at about 250 feet "We struck a flow of water, and the greater the depth the stronger the pressure of water, and we were unable to shut it off." That would indicate to you from your experience in water wells that there was some water in there?

A. There was some water, certainly, but it would not indicate to me that there was necessarily a large supply. The geologic conditions and the climatic conditions are opposed to such an idea.

Q. What is the formation of the San Joaquin Valley in the vicinity of the Elk Hills? Synclinal or anticlinal?

A. It is a broad syncline, taking the whole of the south end of the San Joaquin Valley which includes the area from the [647] Kern River field on one side and this field on the other—is a broad syncline.

Q. And what is there to the east of it?

A. There is a range of mountains.

Q. Quite a high range, is there not?

A. Yes sir.

Q. Is there anything to prevent the accumulation of a large quantity of water in that syncline?

A. Yes; there is probably a large quantity of water in the syncline.

Q. Isn't it possible that the large quantity of water in that synclinal area may force whatever oil there may be in that formation clear through the Elk Hills?

A. Oh, no.

Q. That is impossible, is it?

A. I think so.

Q. Why?

A. Because your Elk Hills is a dome, and the effect of water around that dome would be to concentrate the oil to the top of the dome, and make the lands here the most valuable lands in the whole country.

Q. Suppose that you had a slight dome with a synclinal area back of that, with a porous formation in which water was introduced from a source on the other side of the syncline, much higher than the Elk Hills, and no escape for that water to the surface; will that water go through the dome in the Elk Hills?

A. I think not under the conditions existing here. In the first place, your statement of the source is incorrect—your hypothesis of the source. In the second place, the possibility of water going in to the oil sands is precluded by the fact that they are already filled with oil, and the whole intake is blocked with asphaltum and the water would not come in. [648]

Q. On the east side?

A. On the west side.

Q. On the east side?

A. There is a big fault standing high up, and your intake would not be high enough.

Q. Where is that fault?

A. In the face of the granitic mass.

Q. Have you ever been there?

A. Yes.

Q. On the east side of the valley?

A. Yes.

Q. How high is it?

A. The recent beds there stop right at the edge of the granite, at relatively a low level. There is no condition of an artesian standpoint which would affect the Elk Hills.

Q. There are no artesian wells?

A. No, I didn't state that. I said they would not affect the Elk Hills.

Q. Are there any artesian wells in that valley?

A. I think there are.

Q. A great number?

A. I don't know. I should say it would be a good place for artesian wells.

Q. In answering the question, when you say that the water is not in the dome, you are assuming that there is oil?

A. There is oil proven in the outcrop.

Q. In the Elk Hills?

A. I think so.

Q. The outcrop in the Elk Hills?

A. No; in the flank of the mountain. Taken in connection with the source, it shows there is oil beneath the Elk Hills, which is corroborated by the seepage in the Elk Hills, in the [649] Buena Vista Hills, and the oil in the wells and the gas in the wells.

Q. You mean because there is an outcrop in the Temblor Range that you know that there is oil under the Elk Hills in paying quantities?

A. I believe there is.

Q. That is not the question.

A. I can express it this way:—

Q. Will you kindly answer my question? Do you know that there is oil in paying quantities in the Elk Hills?

A. I believe there is.

Q. I wish a direct answer.

A. I have stated repeatedly that I would not guarantee to any man going into the Elk Hills that he would get commercial wells. But I would advise him to drill and pay an enhanced value for that land because of the geologic conditions, the show of oil in that layer over a wide area.

Q. And yet you don't know from the testimony which would have been available to a man in 1904 that you could make one dollar in a hundred years out of the oil under the Elk Hills, do you?

A. I think a geologist would have taken just the same position that I have outlined, at that time.

Q. Can't you answer my question?

A. I have answered it.

Q. Will you read the question again? (The reporter reads question beginning on line 4 of this page.)

A. I would believe that a man would make a great success. I would not guarantee that he would. I would not guarantee a man in any business undertaking that he would make a profit.

Q. Do you know now that there is sufficient oil in the Elk Hills to add to its richness? [650]

A. I believe there is.

Q. Do you know?

A. No, except as I have stated before.

Q. Do you know whether there is enough oil in the Elk Hills to pay for its extraction?

A. I believe there is.

Q. Do you know?

Mr. Mills—I object to that question and any further examination along this line because the witness has repeatedly stated just what his opinion was, and his answer was entirely responsive to the question. It seems to me that counsel ought not to incumber this record with a lot of immaterialities and insist upon categorical answers where the witness has explained to the best of his ability everything that is responsive to the question propounded to him. I do not want to be repeatedly objecting, but it seems to me we ought to get down to the issues in the case without burdening this record with so much reiteration.

Mr. Lewers—I am trying to get the issues, and not mere guess-work.

A. From scientific deduction, yes.

Q. Do you know?

A. What do you mean by “know?”

Q. Are you not familiar with the meaning of the English language?

A. The word “know” is a philosophical matter—the question whether you know anything or not. I see a stick sticking in a pool of water. My eyes tell

me that the stick is crooked. I pull the stick out and it is straight. I cannot know from my eye-sight in that respect, but I believe from my previous experience that the stick is straight, and I believe there is oil under the Elk Hills.

Q. You feel the stick when you pull it out? [651]

A. No.

Q. You look at it?

A. Yes.

Q. Did you see any oil?

A. I saw conditions around there, geologic conditions, which warrant the conclusion which I reached; and from experience of a great many men through a great many years, that conclusion is justified, and it is the kind of a conclusion on which men invest money and invest money generally with profit.

Q. And upon just that kind of conclusions men invest money in lode propositions?

A. No; I have explained the difference between lodes—

Q. Don't they invest money on just that sort of prediction?

A. Not on the same sort of evidence, no. The evidence in the case of lode claims is entirely different from the evidence in a case of economic minerals occurring in stratified deposits.

Q. In your opinion then—I am now asking for your belief—there is a large quantity of oil under the Elk Hills?

A. I believe so.

Q. And at what depth?

A. I should say it may be under five thousand feet or it may be over.

Q. In 1904 could that have been mined at a profit?

A. No.

Q. Would it have been mined in 1904?

A. No. But there are a great many valuable mineral deposits that cannot be mined at a given moment that are perfectly good mineral lands.

Q. And in your opinion does that oil zone extend anywhere beyond the Elk Hills to the north?

A. I think so.

Q. In your opinion is the Miller & Lux ranch valuable oil [652] land?

A. It has possible value. The value is not as great as the Elk Hills.

Q. Why?

A. The greater depth to the oil. It has a greater water content in the beds above the oil. The difficulty of casing off the water would be greater than in the Elk Hills. I believe the Elk Hills will ultimately be developed into good oil lands.

Q. When?

A. Ultimately.

Q. What period do you have in contemplation?

A. I think the conditions will arise that it will be developed very fully.

Q. When?

A. The matter of when involves a great many considerations.

Q. What considerations?

A. The matter of the price of oil, questions of transportation, questions of economic features. I can illustrate that entirely in the matter of coal lands. You take a coal bed occurring a hundred miles from a railroad today in the central part of the west, a coal bed ten feet thick, of good bituminous coal, with coal beds occurring between that bed and the railroad and numerous mines on the railroad, which is true in a great many places in the west. That ten-foot coal bed cannot be mined at a profit today, possibly. The question of whether that is mined or not depends upon the building of other railroads. There is no settlement in the country. Very few people to consume the coal. A great many factors there. Now, on the matter of immediate development, that would not be coal land because it cannot be mined at a profit at this minute. There may be conditions of marketing and conditions of transportation.

Q. Do those conditions of transportation and market exist [653] now with reference to the Elk Hills?

A. There is a question there of depth. And, again, in coal, as I told you this morning, coal men buy land in which the coal is at a much greater depth than is mined today. There is the ultimate factor of development. It will ultimately be developed, and it is most valuable for that purpose.

Q. You say "ultimately developed." Will you hazard a prediction as to when that would be?

A. No.

Q. Will it be within the next ten years?

A. It is possible.

Q. And it is possible that it may not be for twenty years?

A. It is possible.

Q. Or a hundred years?

A. I think that is very remote.

Q. That is, you think it is safe to say that somewhere in the next hundred years the Elk Hills will be developed?

A. Yes; I think they will be developed before a great many coal deposits in the middle west.

Q. And some of those may never be developed?

A. Yes; and they are good coal land and are more valuable for the coal than anything else.

Q. That is, you think they are all at some time in the future to be developed, and that is why they are valuable?

A. I think they will be developed.

Q. Do you think it is at all hazardous on the part of a competent geologist to say that the Elk Hills is valuable oil land?

A. No; I should say it was valuable oil land, and I would have said so in 1904.

Q. Do you think it is at all hazardous to venture the statement that the Elk Hills contain oil at all?

[654]

A. I think they contain oil. I think the probabilities are such as to warrant the investment of money on it.

Q. Then you don't think the statement that it contains oil is at all a hazardous statement?

A. No.

Whereupon the further taking of testimony herein was adjourned until Tuesday, May 14th, 1912, at 10 o'clock A. M., at the same place.

On Tuesday, May 14th, 1912, at 10 o'clock A. M., the further taking of testimony herein was resumed.

Mr. Mills—It is stipulated between the parties to this cause that all the exhibits heretofore introduced by the government and those which may hereafter be introduced, if any, shall be placed in the custody of United States Attorney A. I. McCormick and preserved and cared for in the vault in his office; it being understood that counsel for the several defendants shall at all times have access to the same.

Mr. Lewers—That is agreeable to us.

Mr. Mills—It is stipulated that no question shall be raised by either party upon the regularity of the proceedings taken and had in this cause on this, the 14th day of May, 1912, because of said day having been declared a holiday for the purpose of state primaries.

Mr. Lewers—That is agreeable to us.

A. C. VEATCH recalled.

CROSS-EXAMINATION resumed

By Mr. Lewers:

Q. Mr. Veatch, you testified—and I am referring to page 1347 of the record—as follows: “The stratified rocks are [655] laid down in relatively regular

layers, for the most part beneath the sea, and are to be contrasted with other rocks formed by igneous intrusions or volcanic outpourings or which have been so altered by metamorphic action as to lose their former characteristics. The individual layers of stratified deposits can be traced for many miles, and in many cases hundreds of miles, showing to a great extent the same characteristics, and it is on this regularity or irregularity as shown by the outcrop that practical men base their conclusions and have spent great sums of money in developing minerals of the kinds which occur in stratified deposits." Now, did you trace any such stratified deposits for many miles in the vicinity of the Elk Hills, or is that merely a general preliminary statement?

A. That is a general statement of fact. I think it applies to this region. There is such a regular or irregular layer running along that mountain for many miles—several of them.

Q. Well, did you select any layer of that kind, or stratum, on that outcrop along the Temblor Range and follow it for any distance to determine its continuity?

A. Those diatomaceous beds are very persistent, that is, considered as a group of beds. They run for a great many miles.

Q. I am not asking as to any group of beds, but as to any particular bed which you would say belonged to one period of time.

A. Well, those diatomaceous beds.

Q. Through a single period?

A. I think so.

Q. Well, did you determine in any way to what period they did belong?

A. No. They could still belong to one period and not have that period determined.

Q. Did you follow from any point to any other point at any distance from it any particular layer?

[656]

A. What do you mean by—

Q. I am using the term which you employed—showing that the stratum or series of strata that you were examining belonged to some comparatively short period of geologic time?

A. Why, I have stated those diatomaceous beds as running a great many miles there.

Q. You are aware, are you not, that Mr. Arnold has termed those shales at McKittrick “Monterey shales”?

A. Yes.

Q. Now, did you follow what he has termed “Monterey shales” for any distance at all along the out-crop?

A. I followed them along that mountain range there.

Q. How far did you follow what he has called the “Monterey shale”?

A. In the region between Sunset and below Sunset and McKittrick.

Q. And did you find Monterey shales exposed along that entire region?

A. Found diatomaceous shales.

Q. Well, did you find Monterey shales?

A. I don't know that they are Monterey.

Q. Then the exposures at different points along that area might have belonged to other formations?

A. I don't believe so—referring to the diatomaceous beds I am speaking of.

Q. Do you think they are all a portion of what Mr. Arnold has termed "Monterey shales"?

A. He has noted them as Monterey. It is a matter of correlation as to whether Monterey includes that, if that is the definition of the word "Monterey"; and for any economic purpose concerned here we have the three part division of that mountain chain that I outlined yesterday. [657]

Q. That may be or may not be; but what I want to know is, did you determine that all of these exposures of shale which you have termed diatomaceous shale belonged to the same period as those which Mr. Arnold has called the "Monterey shale"?

A. Yes; the ones that I am speaking of do, I think.

Q. And were they laid down, in your opinion, at the same time as the shale which Mr. Arnold has called "Monterey shale" which is revealed at McKittrick?

A. Yes; in the stuff just southwest of McKittrick they are observable.

Q. Well, was it at Sunset laid down at the same time, in your opinion?

A. I think, relatively speaking, in a geologic sense.

Q. And in the Devil's Den district?

A. I don't know.

Q. You have examined that, haven't you?

A. No.

Q. Have you been up there at all?

A. No.

Q. Then you are not familiar with that?

A. No.

Q. In what direction is the diatomaceous shale which Mr. Arnold has called "Monterey shale", which is shown at McKittrick, dipping? West or east?

A. It is badly broken there.

Q. Well, where you find the exposure or section of that shale in the vicinity of McKittrick, in which direction is it dipping? East or west?

A. I think that you can get the dip in almost any direction at McKittrick on those beds. That is my general impression of it.

Q. Is it not a fact, Mr. Veatch, that in the vicinity of [658] McKittrick the thrust has thrown what Mr Arnold calls the Monterey shale from the west on top of the formation lying to the east?

A. I believe that is true.

Q. So that the section which is exposed there is a section of the overthrust from the west, is it not?

A. Yes, in a portion of that McKittrick Hill.

Q. And that indicates to you, does it not, a definite

fault line—more or less definite fault line at McKit-trick?

A. It does.

Q. With a thrust from the west?

A. Yes; probably so.

Q. And the exposures of oil in the shape of asphaltum are in the vicinity of that fault, are they not?

A. Yes.

Q. Did you determine whether or not the oil which produced those asphaltum beds there came from the east or from the west?

A. I did not.

Q. You could not determine that, could you?

A. I don't believe I could, no.

Q. And was that not a factor—that is, the over-thrust from the west—rendering it somewhat difficult to determine the thickness of any beds of this shale that might extend toward the east from McKit-trick?

A. If that was the only exposure in that whole region, that would be true, but taking the general geology into consideration, I think that should be regarded as a minor disturbance.

Q. Where else did you find any exposure of that same structure, into that same shale?

A. I think that the beds there in the Temblor Range to [659] the southwest show it.

Q. To the southwest?

A. Yes.

Q. Did you find any in the vicinity of Midway?

A. Yes. They belong to the beds below those porous beds that I have spoken of as the third member.

Q. Did you find any opposite the Elk Hills?

A. They extend along that whole range. The nearest point they approach to the Elk Hills is in that McKittrick district.

Q. You have a copy of Mr. Arnold's plate No. 1, have you not?

A. Yes.

Q. The portion of the Temblor Range that lies opposite the Elk Hills, and particularly opposite the lands in question in this case, is some distance to the southeast of McKittrick, is it not?

A. It is much nearer to it to the west of the hills. The matter of "opposite" I think is merely a quibble.

Q. That may be, but perhaps I have a reason for indulging in that quibble. Will you answer the question?

A. Well, now, it is simply a question of what you mean by "opposite". A building may face on two streets. It can have things opposite in different ways.

Q. I will explain what I mean by opposite, Mr Veatch. I did explain it yesterday. Take a line running generally along the axis of the anticlines which you have indicated in the Elk Hills, and draw a line perpendicular to that and as near perpendicular to the axis of the Temblor Range anticlines as you can. Where will it strike the Temblor Range?

A. Some place near Midway.

Mr. Mills—That is the center of the line you mean?

Mr Lewers—Yes.

A. And did you find, at any place between Midway and a [660] point say eight miles to the northwest of Midway, any exposures of sections of this diatomaceous shale?

A. No.

Q. Did you find any sections of that diatomaceous shale at a point between Midway and what is known as Spellacy Hill?

A. In the range back of it there is some.

Q. Well, in my question I am including any exposures that you found in that range, whether on the front of the range or back toward the west.

A. I think there is some in the hills to the west.

Q. Whereabouts? Could you locate that with more definiteness?

A. Only in a general way. I went in and out of those hills there without locating the sections.

Q. Well, with reference to the town of Midway, could you give me an idea where it is as to directions and distances?

A. It would be generally in that range of mountains to the west of Midway.

Q. And about how far?

A. Oh, it would be several miles.

Q. And how thick was the exposure of diatomaceous shale that you were able to determine there, approximately?

A. I made no determination there.

Q. Where was it that you made your determination?

A. In southwest of McKittrick.

Q. About how far southwest of McKittrick?

A. Four or five miles.

Q. And what is the appearance, Mr. Veatch, of diatomaceous shale which is oil-producing? What color is it?

A. I don't know.

Q. Did you ever see any?

A. Only in regarding this diatomaceous shale as the source [661] of the oil. I say that I don't know that it is the source of the oil, but I believe it is. That has not been absolutely proven. It is not susceptible of absolute proof.

Q. Would the horizon test which you have announced indicate to your mind that there was any oil in the land underlying what is known as the Midway Valley to the east of Midway?

A. Yes.

Q. Did you determine what the dip of the formation was there?

A. No.

Q. You know as a fact, do you not, Mr Veatch, that wells have been sunk on the slope leading down to that valley from the Temblor Range?

A. Yes.

Q. You also know, do you not, that recently many of those wells in that district have been abandoned?

A. I didn't know that.

Q. There are certain wells in there sunk by the Standard Oil Company, are there not?

A. I have heard that the Standard was working in there. I don't know where they are working.

Q. The Standard Oil Company has withdrawn from that territory, has it not, on account of inability to find any oil?

A. I don't know that at all. I know they are working in that region, and according to newspaper accounts have gotten large wells recently.

Q. You have no definite information?

A. No; but what I have does not agree with that statement.

Q. Did you determine, or could you determine, Mr Veatch, at the place near McKittrick where this thrust from the west occurs, whether or not all of that shale formation had been thrust over the formation to the east? [662]

A. I didn't attempt to do so.

Q. And it is possible, is it not, that that shale formation is very much thicker than shown by the section on the surface?

A. You mean the remnant that is shown there at McKittrick?

Q. Oh, no; I mean from all indications on the surface.

A. Why, I think that that shale could be worked out in that range there, the thickness could be gotten with a great deal of definiteness, with a great deal of careful work.

Q. Possibly what had been thrust up could, but could you determine the entire thickness of those beds of shale as originally laid down?

A. I think so.

Q. From the evidence that there is there manifest?

A. Yes, in that mountain range there in the neighborhood of McKittrick.

Q. Isn't it possible that only a portion of the entire thickness of those shale beds has revealed itself by any evidence on the surface?

A. There is a possibility of erosion, but from what I have seen of the region I should say that you could determine practically the total thickness, with careful work, extending along that range.

Q. Now, did you determine or do you know whether the overlying portion of that shale is the oil-producing portion or not?

A. No.

Q. That is, I mean the oil-originating portion.

A. I believe that it is. I believe that the whole series is an oil-producing formation.

Q. And upon what do you base that conclusion?

A. I have stated that I could not demonstrate, and do not [663] believe that it is susceptible of demonstration, that the shale is the source of the oil. I believe that it is, and I believe that the whole diatomaceous shale is oil-producing.

Q. In Bulletin No. 322 by Mr. Ralph Arnold and Mr. Robert Anderson, issued in 1907, discussing the

geology and oil resources of the Santa Maria Oil District of Santa Barbara county, Mr. Arnold and Mr. Anderson make this statement at page 74, in discussing the criterions for judging as to the presence or absence of oil: "The second criterion is the stratigraphic position in the formation of the beds exposed over the area in which oil is sought. As has been before stated, the oil-bearing strata occur chiefly in the lower portion of the Monterey. Where the outcropping beds belong to the higher portion of the formation there is a greater likelihood that the underlying oil-bearing strata have been able to retain their contents than where the lower strata have been denuded of the greater part of the overlying beds or where they are themselves exposed or partially removed." Do you agree with that statement?

A. I don't know the Santa Maria field; but the answer to that I think is found, with relation to this field, in the facts that I stated here. The big oil-producers are overlying shales and the small oil-producers underlie this diatomaceous series, which would indicate that if the diatomaceous shale is the source of the oil, it is the upper portion that is the most productive.

Q. Then it is your opinion, from the indications, that in the vicinity of McKittrick the upper portions are probably the most productive?

A. That would be shown by the development, the conditions there.

Q. And that probably a different condition exists in the Santa Maria fields?

A. I don't know as to the Santa Maria field. [664]

Q. At page 203 of Bulletin No. 406, on the McKittrick-Sunset Oil Region, issued in 1910, Mr. Ralph Arnold and Mr. Harry Johnson make the following general statement with reference to this territory that has been referred to: "The conclusions here to be discussed as to the course that future development will take in the McKittrick-Sunset region are based on a belief that the petroleum in the Devil's Den District is largely derived from the shales of the Tejon formation and the overlying Oligocene (?) rocks, and that on migration it collects in the sands in the Vaqueros (lower Miocene) formation, which lies above the two formations first mentioned; and that the petroleum in the territory from the Antelope Valley southward is derived from the shales of the Monterey and Santa Margarita (?) formations, and that on migration it collects in the sands at the base of or underlying the Monterey formation—that is, in the sands of the Vaqueros; in sand lenses in the Santa Margarita (?), and also in the porous beds at the base of the McKittrick, which unconformably overlies the older formations. All the conditions indicate that this belief is well founded." Do you agree with that statement?

A. I have stated that I didn't know the Devil's Den district at all.

Q. Do you agree with that statement so far as it concerns other territory out of the Devil's Den district?

A. I have stated, which essentially answers that question, that in my belief, and to the best of my knowledge and belief, the diatomaceous bed of this region produced the oil, which accumulated in the sands which occurred below it and which accumulated in the sands which occurred above it.

Q. Well, have you formed any belief as to whether or not the lower portion of that Monterey shale produced the oil originally? [665]

A. I think it did, with respect to the oil that accumulated in the beds that underlie it.

Q. Well, did the upper portions of that Monterey shale in the vicinity of McKittrick produce any oil?

A. I think the whole series produced the oil. It is a matter that is very difficult of proof.

Q. Or to disprove?

A. Yes. The argument as to the Elk Hills is based not upon the presence of this shale but on the presence of a porous bed which is filled with oil and the persistence of the oil in that porous series.

Q. Mr. Veatch, in your opinion can the existence of oil be determined without drilling?

A. It cannot be proven in commercial quantities without drilling.

Q. Can its occurrence be determined?

A. I think it can to a reasonable degree. The matter of opinion is based upon experience and on the stratigraphic condition. The geology of the country shows, within the reasonable probability of suc-

cess of a business venture, that oil occurs there. If that were not true there would be no occasion whatever for employing geologists, as the Southern Pacific Company does and a great many other companies do.

Q. Is that made as an answer to my question or as an argument?

A. There is no argument in that. It is simply an explanation.

Q. You were asked with reference to the Southern Pacific employing geologists, were you?

A. I used that merely as an illustration. A large number of companies do. That was merely one large company which employs geologists in that way. There are a great many of them. [666] It is the usual method today.

Q. Now, in your opinion is the sinking for oil in a territory like that in the Elk Hills a gamble?

A. I would not term it so. I think there is an element of risk, as there is in all business ventures. I would not guarantee that there was oil there, but I would say that there was such a reasonable probability of it occurring there that it would justify expenditure. I would certainly advise a company to drill there and would be sure in my belief that they would get a large quantity of oil. If I didn't believe that from the geologic evidence I would not advise them to drill.

Q. Then would you agree with this statement, made by Mr. Youle at page 1051 of the record: "I would not care, if I had an idea the formation was

there and the ear-marks were there, whether the Associated Oil Company went down four thousand feet or whether they went down three feet and a half—that would not cut any figure whatsoever. They might get a water well. Water streaks go through any formation. That is why the oil business is a gamble. It is because there is no man, geologist expert or anything else, who can tell you where these faults are. There may be a world of oil there there may be a tight streak of sand, filled up with clay that won't let the oil through, and you might drill right in that spot. You can't look down and see; you may be in the wrong place. But by reason of being unfortunate and getting in the wrong place, that don't test a territory. It takes several wells to test a territory. That well of three or four thousand feet would not cut any figure with me at all. Q—Then it comes right back to this, that the proper test in the territory is the well? A—Wells—'wells'. Q—'Wells'. A—Plural. Q.—In the plural? A—Yes." Do you agree with that?

A. In a general way, yes. He distinctly states that if the ear-marks were there—by which I think he means the favor- [667] able geological conditions—he would contend that that was oil territory even though a man had put down a well and reported nothing. There are a great many cases where wells have been sunk where there is perfectly good oil, there is oil in large quantities, where the wells have reported nothing. There are certain mechanical features in drilling the well, and I think it is entirely true that

a single well would not test the oil layer. There may be a layer of water-bearing sand entirely separated from the oil; the oil sands may be passed through, and nothing but water developed. That well would not be conclusive in any way. That is particularly true where wells are drilled with a rotary and where the formation is masked by the mud used in the rotary process. No geologist will guarantee that oil will be encountered at any point; but he can give you the probabilities that exist there.

Q. Would you agree with this statement, made by Mr. Youle at page 1047 of the record: "I know this, that geologists, the scientific geologists—Le Conte—taught in school there was no oil in California, and gave a good reason for it. I know that you can get all the evidence you want from geologists and from bulletins that this is so and that is so, but you can't prove it until you put the drill on, and the drill has shown exactly what practical geology is."? Do you agree with that?

A. In a general way. I think Mr. Youle is an excellent example of a practical geologist. He has gone out there and by advance drilling has said, "This is good territory"; he has advised it and his prediction has come true. There is a great distinction between the practical field man and a man of the type of Professor Le Conte, who was a very able writer and who sat in his office and spun theories. There is a great difference, a very sharp line, between the actual field geologist and the writer of a great many text books.

Q. Well, the question was do you agree with Mr Youle's statement?

A. I think I have expressed my opinion of it.

Q. You agree with it with modifications?

A. No; I say that Mr. Youle is in himself proof of the point. The development of this great West Side field, I think, is due to Mr Youle. He went in there before there was any development. There was a little development at McKittrick and that had been practically abandoned. He was sent in there by a group of oil men as a practical geologist. He went along the territory, he traced these seepages, he saw the dip down into the valley, he saw these folds in the side; he went back and said, "This is good oil territory", and on that advice they developed. I think you can get no better example of the soundness of practical geology.

Q. And yet, during all that time nobody ever sunk a well in the Elk Hills? Is not that the fact?

A. That is not at all conclusive as to its oil.

Q. Well, that is the fact, isn't it?

A. There may be a coal bed 200 miles from the railroad that no one can possibly develop. In advising regarding the development of that territory, here is the outcrop—a long outcrop—running for 30 miles or more. You will get shallower wells near the outcrop than you will at much greater depths, and it is simply a practical business proposition to sink for the shallow oil. I said yesterday that the Elk Hills will ultimately be developed, and, in my

opinion, will be a large oil field, a large producing field.

Q. Why is it that at every opportunity you bring in your illustration of the coal fields? Is it by reason of your former experience as an expert in the case of the United States against Diamond Coal and Coke Company? [669]

A. No. My experience has been, as testified, specially in stratified deposits. We are dealing with oil, which occurs in a stratified deposit; coal occurs in stratified deposits; and the two things are analogous in a great many ways and can be used as a very apt illustration.

Q. But they are not analogous in this, that coal stays where it is formed and oil does not? Is not that the difference?

A. That is the difference.

Q. Now, you say that by reason of that you believe this territory will eventually be developed and that in your opinion the proper test is not what its commercial value was in 1904? Is that correct?

A. I think its absolute commercial value in 1904 is a minor matter. It is good oil territory.

Q. Now, there is a great deal of clay, is there not, in the Elk Hills?

A. I have seen some.

Q. Clay contains aluminum, doesn't it?

A. I think so.

Q. And contains, frequently, a high percentage of aluminum, does it not?

A. Yes; a certain kind.

Q. Aluminum has value in the market, hasn't it?

A. Yes.

Q. And the time may come, within the next fifty years, where they may discover some method to cheaply extract aluminum from the clay in those hills, may it not?

A. Yes.

Q. Would you therefore say that the Elk Hills, in 1904, were valuable for their aluminum deposits?

A. No.

Q. Why? [670]

A. For this reason, that clay is one of the commonest things on the earth. If a cheap method of obtaining aluminum from ordinary clay is devised, the clay deposits developed will be nearer to market than this deposit. But there is this consideration also, that if its ultimate value for aluminum is greater than its ultimate value for agriculture, I think that land is mineral land.

Q. Well, you don't think it has any value for agriculture, do you?

A. Practically none.

Q. Well, then, if it has ultimately the value of five cents an acre for aluminum, it is valuable aluminum land today, is it not?

A. Not at five cents an acre. Your assumption I think, is not well taken.

Q. All right. Where do you draw your line? That is what I am anxious to get.

A. In what way?

Q. As to the value. When would it become valuable for any mineral? What is your test of value above which you say it is valuable mineral land and below which you say it is not?

A. I think there is a question of relative value. For instance, there is a farm on a particular clay soil. Now, if that clay soil is more valuable for growing wheat than for making brick, that is agricultural land; but if the clay is more valuable for making brick than for growing wheat, it becomes mineral land.

Q. But suppose a method is discovered for extracting the aluminum from the clay, and the aluminum is worth more than a crop of wheat grown on that ground, somewhere in the next hundred years, wouldn't you say today that it is more valuable for the aluminum? [671]

A. That is, if the aggregate value of the aluminum is greater than the aggregate agricultural value? Is that your question?

Q. Yes.

A. I think it will. That applies naturally to gold mining and placer mining. You have a good orchard on a piece of land which has gold in the gravel below. If the gold is worth more than the orchard, that gold will be mined; if it is not, it will not.

Q. What would you say then as to the classification you place the Elk Hills in, if this were the condition: That it was demonstrated that there was a

deposit of petroleum underlying the Elk Hills within reach of the drill at the present time according to recognized methods; that that oil could all be extracted at a cost of \$200,000 in sinking wells and operating them; that that oil when extracted would bring in the market \$250,000; that the soil, so far as the oil is concerned, would thereafter be valuable, and that in the course of fifty years there could be received from agricultural products—from grazing or from any other ordinary use of the surface of the soil (not mining) \$52,000 in profits. Would that be mineral land in your opinion or not?

A. I would have to know more about the receipts from your grazing.

Q. Take my assumption that there is a profit of \$50,000 from the oil and \$52,000 from other non-mining uses of the soil.

A. In how long?

Q. In a period of fifty years.

A. That is, a net profit, exclusive of taxes, exclusive of administration—

Q. Yes, a clear, clean-cut profit in both cases.

A. I should say that that was a doubtful question, because [672] there is the matter of moving your oil. Your assumption of \$200,000 may not be correct.

Q. Take my assumption as I give it. I want you to answer on the assumption that the facts are established. I want your determination of what you would call that, assuming that from the one you would make \$50,000 clear and from the other \$52,000 clear.

A. I would say that it is mineral land, for the reason that one use would not interfere with the other. The instance I cited on the agricultural worth, was in a case where the agricultural value was destroyed by removing the mineral.

Q. You say you would call it mineral land because the other use would not be destroyed. If they were occupied during any considerable portion of that period by oil wells, derricks, machinery, buildings, and so on, in connection with the oil development, and the persons operating the oil wells were entitled under the laws to the exclusive possession of the surface, as they are, wouldn't that interfere with any other use that you could make of the soil?

A. Practically in the Elk Hills, no; because of the character of the Elk Hills. The value is so very low for grazing that the occupation of that by a few wells would not greatly detract from what little agricultural or grazing value it has.

Q. You do not expect a great many wells to be there?

A. Not on \$200,000.

Q. As a matter of fact, there are not many wells there, are there?

A. There are a great many derricks there which are occupied, but I think the grazing is just as good as it was before the derricks were put there. Considered as a whole, the percentage of loss is so small as to be negligible.

Q. Are the twenty-eight wells on Township 20-23 completely [673] valueless?

A. I don't know. But even assuming that to be true, I do not think that bears on the oil value of the lands, for this reason: That there may be a derrick, and the well may not have gone to a sufficient depth, which I think is true with a majority of those wells. The derricks may have been put up on the assumption that the Secretary's order of withdrawal of September, 1909, was not valid. And the people may have concluded that the government would enforce that. That would be a serious consideration.

Q. I wish you to answer my question without trying to modify the assumption. I am asking you as a hypothetical question, and assuming that the facts are true, that in a given period of time—say fifty years—the total amount of oil produced from any given piece of territory (Elk Hills or anywhere, it makes no difference) yielded a profit with economical management of \$50,000; and that during that same period from non-mining uses to which that might be put, it yielded a profit of \$52,000; and that if the land was occupied for the oil mining purposes on the one hand, the other proposition could not be carried out, and if it was occupied for the other purposes the oil mining could not be carried out. Now, which would it be? Mineral land or not?

A. Mineral land, because if it is occupied by the explorer and is so used for fifty years for that purpose, it is certainly mineral land during the time it is occupied.

Q. Do you think that is a fair answer, Mr. Veatch?

A. On your question, yes.

Q. Did you listen carefully to the question? Did you not understand that there were two assumptions—on the one hand that it was occupied fifty years or could be occupied fifty years by oil mining and yield a profit of \$50,000, and on the [674] other hand that it could be occupied during that period for other purposes, not mining, and yield a profit of \$52,000? Now, having those two possible uses in view, which would that be in your opinion—mineral land or not?

A. I think that the question is not complete enough to warrant an answer.

Q. That is, you do not care to commit yourself on that?

A. No; I want to know certain factors. There is a question whether your surface is absolutely destroyed at the expiration of your mining, and whether it can then be utilized for a fifty year period for agriculture.

Q. You can assume one way or the other on that as you please. I am asking for its character now, where within the next fifty years either one of those two things can happen. I am not asking for its character after the fifty years. But we will assume that after the fifty years it could go on and still be used for other purposes—not mining. Now, can you answer?

A. I think if land is clearly more valuable for agriculture than mineral, it is agricultural land, and it has not become clear to me from your statement just the relationship.

Q. If agricultural or non-mining uses of that land would produce a profit of \$52,000 against \$50,000 on the other, you would say it was more valuable for agricultural than for mining uses?

A. Yes, on your statement of it. But I should add to that answer this: That I don't believe your question applies to the Elk Hills—

Q. Were you asked whether it applied to the Elk Hills?

A. And, furthermore—

Q. Were you asked whether it applied to the Elk Hills?

A. I see no reason for the question unless it does.

Q. Do you feel it necessary to make an argument to remove any possible bearing my hypothetical question may have on this case? [675]

A. None at all.

Q. Are you in the position of a cold, dispassionate expert, or in the position of a partisan for the government, in this case?

Mr. Mills—I object to that question because the witness has been fair and entirely responsive.

A. I am not—

Q. By Mr. Lewers—You are not what?

A. I think I am a dispassionate expert in this case, endeavoring to give to the court a fair idea of the facts existing in this case. I have been carefully over the field. I think I know the facts there, and I want them presented fairly to the court.

Q. You have been carefully over the fields? You

have been there three weeks in all, at odd times. Now, Mr. Veatch—

A. I had not finished my last explanation. And, referring again to coal, here is land which will produce agricultural crops. Take the coal fields in Indiana and Illinois, and the surface is not destroyed in a great many cases and the land is certainly coal land.

Q. Is it your idea that if the government sets aside the patents in this particular case, that after the oil is taken out of that land that there is any method whereby the patent can be restored?

A. You are asking me a question of law.

Q. You have not hesitated to answer questions of law.

A. In what respect?

Q. With reference to the intention of Congress.

A. That is a matter of scientific determination to me.

Q. Now, did you in the preparation for your determination of what a man in 1904 would have known, read a bulletin issued by the California State Mining Bureau, entitled "Bulletin No. [676] 32," issued in March, 1904?

A. Yes.

Q. On page 38 of that bulletin, referring to the Sunset region, the following statement is made: "The wells lie on the lower foot-hills of the coast range, and extend out on the mesa at their base, where are located the stations Pioneer and Maricopa, and

railroad station called Sunset. The elevation at Pioneer is 750 feet, and the wells rise to the maximum height of 1025 feet.

“The formation is of Middle Neocene age, and is in form an inclined plane, following the dip of the surface, in general. Depth of wells varies from 550 to 1000 feet, according to surface conformation, and to position on the dip; the average depth would fall below 750 feet. The producing strip is a very narrow one, and appears to have been determined on all sides, with the possible exception of the southeast corner.” Did you take that statement into consideration in reaching your conclusion as to what a man in 1904 would have thought about the Elk Hills?

A. I did; and I also took into consideration that the author of this paper has stated in the letter of transmittal that he is an engineering chemist, and stated what he saw and not what a geologist would deduce.

Q. And then when he stated that the producing territory had been determined on all sides except on the southeast, and that it was a very narrow one, you do not think his statement was worthy of consideration because he was not a geologist?

A. I think his statement was not true.

Q. Did it not occur to you that that statement might be a fair indication of the general impression and belief amongst oil men?

A. No, I don't think so.

Q. Did you also take into consideration when he

said on [677] page 40 with reference to the Midway: "The Midway wells form a narrow line, almost straight, from a point about one-half mile north of the northernmost Sunset well, extending northwest for some six miles. The producing strip does not appear to be anywhere more than one mile in width." Did you take that into consideration?

A. I did, and also the accompanying maps which show the producing wells which essentially agree with the Barlow & Hill map, which is one method I had of checking the accuracy of the Barlow & Hill map.

Q. And show that the producing strip was nowhere more than a mile in width?

A. It shows only that wells had been put only that far; it did not show that the country was not productive.

Q. And yet he states the producing strip was only a mile.

A. His conclusion is erroneous.

Q. That may have been the conclusion drawn in that country at that time?

A. It certainly was not from conversations that I had with various people. If that was the conclusion, you would have seen no more wells sunk and no more development of that great territory which has since been developed. If oil men had believed that, the development would have ceased, and it has not.

Q. I am speaking of what they believed in 1904. Did you take into consideration what he said with

reference to the McKittrick on page 41: "The town of McKittrick lies in a flat valley of the width of some two miles, and bounded by hill ranges of no great height, with a due northwest and southeast trend. On the hills to the southwest lie the principal developments, following the line of the valley for three miles. About midway between the town and the head of the valley a group of wells has been drilled in the mesa, while on the south [678] slope of the north hill range some oil has been obtained, though not in paying quantities. The town is at an elevation of 1114 feet, the highest wells 1400 feet.

"The formation is of middle Neocene Age, but its shape has not been determined with certainty. It is probable that the parallel hill ranges, which are remarkably regular and persistent, are of anticlinal formation; but such anticlines, if they exist, are certainly much faulted, and the productiveness seems to be largely determined by the presence or absence of these breaks. As will be readily seen, on examination of the map herewith, the field has been thoroughly tested, and proven to be very 'spotty', a condition readily explained by the highly broken condition of the surface, and the numerous seepages and evidences of chemical action." Did you take that into consideration?

A. Yes; and also the further statement that the depth of the wells varies from 500 feet to nearly 2000 feet, and in considering that, the wells which are referred to as on the north hill, as not paying wells, occur in a region which is much more broken than

the Elk Hills and is not to be compared with it in any way. That would be evident to a geologist who was there in 1904 examining the territory.

Q. But the statement contained in that bulletin does not indicate that it was known to the writer of that bulletin?

A. No; the writer of that bulletin stated in the introduction that he was an engineering chemist, interested in the quality of the oil and uses of the oil rather than in the matter of development.

Q. And you think for that reason he was not in a position, going into the territory in 1904 in place of 1912, like you did, to find out what was generally believed there at that time?

A. He was not in the position that Mr. Dumble and Mr. Owen were in at that time. [679]

Q. That is not the question. And why did you think it was necessary to bring them in? Is it as a disinterested expert or as a partisan?

A. Because in forming my opinion I was sent into that region to determine what a geologist would have concluded in 1904, and it has been testified that these geologists were in there. I know of their work. I know of the character of that work. And, therefore, form some conclusion as to what they must have seen when they were in there.

Q. The question I asked you was whether in your opinion you, in 1912, were in a better position to determine what was known and believed in that territory concerning the occurrence of oil than the writer

of this Bulletin who was in there in 1904 in place of 1912?

A. Yes; I think this bulletin takes no account of a paper by Frank M. Anderson, which is very detailed in character.

Q. You have that paper in your possession now?

A. No.

Q. You are referring, are you not, to a paper called "A Stratigraphic Study of the Mount Diablo Range in California"?

A. Yes, sir.

Q. Will you kindly examine that and find some statement by Mr. Anderson indicating in any way in a remote degree that the Elk Hills contain oil?

A. It relates to the structure of the region, the general geologic sequence. It shows a very careful geologic investigation which bears entirely on those problems. The bulletin expressly says that it avoids any reference to economic features, because the work was done for private purposes and not for publication. On page 156 of the bulletin is this—

Q. Can't you answer my question, Mr. Veatch? Will you point [680] out anywhere in this paper by Mr. Anderson any statement that indicates in the remotest degree that the Elk Hills are oil territory and were considered such when he wrote that paper in 1905?

A. He did not so state. I am explaining why he did not so state, and am explaining that it says—

Q. You cannot point out any such thing?

A. No statement that the Elk Hills are oil land.

Mr. Mills—I object because you did not permit the witness to fully answer your question.

Mr. Lewers—I don't want a rambling dissertation.

Mr. Mills—He has got down to the point of why he did not declare the Elk Hills oil territory.

Mr. Lewers—I think Mr. Anderson is better able to explain why he did not.

Mr. Mills—If you permit Mr. Veatch to finish his answer, he will explain it.

Q. By Mr. Lewers—The question is whether you can find anything in there which furnishes a foundation for your saying that in 1904 that was regarded as oil territory. I don't care for explanations why it don't say so, but whether it does?

A. On page 168 is this statement: "The greatest thickness of Miocene rocks found in any part of the range is near McKittrick and Temblor," and again on 169, "The most conspicuous member of the Miocene in this section is the Monterey Shales, which have here an aggregate thickness of more than 5000 feet." "The siliceous portion of the Monterey Shales predominates, and generally shows remains of Diatomaceae and other siliceous organisms, with bones and scales of fishes." "The Monterey Shales, apparently, in undiminished thickness, make up the mass of the main range west of McKittrick, but they have not been traced easterly much beyond the Sunset District." [681]

Q. "Make up the mass of the main range west of

McKittrick, but they have not been traced easterly much beyond the Sunset District." Does that say anything about the territory? Does it refer in any way to the territory where the Elk Hills are?

A. It is an important geologic observation which bears directly on the questions involved. It shows the detailed character of the work in that region, which was available at that time to determine the problems involved in the Elk Hills. With that knowledge of the range, an examination for a part of a day in the Elk Hills would have satisfied one of the character of that land.

Q. Does that statement that you have read from Mr. Anderson's paper lead you not to attach any importance to the statement in Bulletin No. 32 with reference to the McKittrick District which I read?

A. That and other things which I have explained. And, furthermore, in the preface of this bulletin, on page 156, is the statement:

"The systematic study of the field covered by this paper, and its stratigraphy, was begun for purely economic and private purposes and not for publication; nevertheless, so much data and material of a scientific interest have been gathered, and so much information has been acquired, part of which, though of a practical nature, it is permissible to make public, that some of the more general facts are here offered as a contribution to the geological literature of California.

"The matter and conclusions set forth are the result

of a field-study extending over a period of more than two years, made partly alone, and partly with the co-operation and aid of Mr. Josiah Owen, whose knowledge of the field is both extensive and practical to a high degree, and to whom are due many of the stratigraphic observations here presented. [682]

“The advantages for a stratigraphic and faunal study offered by this field are in most respects unsurpassed anywhere. The aridity of the climate, and the soft and crumbling nature of the younger sediments, together with the action of the wind, combine to give excellent and accessible exposures of rock, while in many cases the almost perfect preservation of the shells and other fossils renders the task of identification satisfactory. The structure of the rocks, moreover, is generally simple, and strata are readily followed to almost any extent, particularly along the eastern flanks of the range, to which most of the field work was naturally confined.

“In this connection it is proper to mention the generous interest taken in this work by Professor E. T. Dumble and the many facilities afforded through his kind co-operation.”

On page 157. “The Mount Diablo Range, as defined by Whitney, extends along the southwestern border of the Great Valley of California, from Mount Diablo, near the Straits of Carquenez, southeasterly to Pine Mountain, where it unites with the Tehachapi Range, which links it with the Sierras. Thus the Valley of the San Joaquin is surrounded by a contin-

uous barrier of ranges on the east, south, and west, while it is separated by the Mount Diablo Range from the rest of the interior basin occupied by the Salinas and Carisa Valleys. In other words the Mount Diablo Range divides the basin of the California interior somewhat centrally, presenting at the same time magnificent stratigraphic sections that are unsurpassed anywhere in the west in their exposures.”

Q. What do you read that for?

Mr. Mills—In response to your question.

A. In response to your question. I was explaining why I think that was of importance.

Q. By Mr. Lewers—Is the region that he refers to there [683] the Elk Hills?

A. No; it is the region west and northwest.

Q. And extends clear from San Francisco south, doesn't it?

A. Not specifically, I think. The paper is restricted in the region from Coalinga to the west of McKittrick.

Q. Isn't it a fact that you read that merely because of the reference to Mr. Owen and Mr. Dumble?

A. No; it is a matter of a statement of how evident the geologic structure was in this region. The character of the exposures is most excellent and, as he says, most probably unsurpassed in the west.

Q. Why was it that you emphasized the names of Owen and Dumble as you read it, as if they rolled pleasantly off of your tongue?

Mr. Mills—I object to such quibbling sort of ques-

tions. You yourself have dragged in the name of Dumble and Owen repeatedly.

A. I was not aware that I emphasized them.

Q. By Mr. Lewers—You did not read it for the purpose of bringing them in?

A. No.

Q. Is there anything in that which serves to contradict the statement made in Bulletin No. 32, issued in 1904 by the California State Mining Bureau, from which I have read?

A. It merely shows this—

Q. Is there anything that contradicts any statement in that bulletin?

A. Not directly.

Q. Then what bearing does it have?

A. I would have to go back to your several questions to know how that came about.

Q. You are familiar, are you not, with various writings [684] of Mr. Ralph Arnold on California Oil Fields?

A. Yes sir.

Q. You have examined them all, have you?

A. I think not.

Q. Mr. Arnold is generally recognized as one of the ablest geologists who has written concerning the California oil fields?

A. Yes sir.

Q. And is a man who now has a quite extensive practice as consulting engineer and geologist in connection with the oil fields?

A. Yes.

Q. Are you familiar with a bulletin issued by Mr. Arnold, or written by Mr. Arnold, in 1905, on the Salt Lake oil fields near Los Angeles?

A. No.

Q. In that bulletin he makes this statement: "Anyone at all familiar with the conditions of occurrence of petroleum in the California fields knows that any but the most tentative predictions as to the location of the oil are extremely hazardous. The following suggestions, based on the evidence in hand, although lacking definiteness for the reasons above stated, may be of some assistance to those engaged in developing this field."

Mr. Mills—What page is that?

Mr. Lewers—Page 360 of House Documents, Volume 76.

Mr. Mills—We object to the question as irrelevant and immaterial.

A. I don't know just what the context of that report is. I don't know what the conditions are. But I think your question is answered by the fact that Mr. Arnold now has such a large private practice that if he could not determine with some reasonable degree of accuracy, people would not invest money on [685] his statements.

Q. By Mr. Lewers—In Bulletin No. 406 by Mr. Ralph Arnold, at page 210, he makes this statement: "Assuming the thickness of the McKittrick formation to be about the same in the hills as it is in the

Midway and McKittrick districts—that is, between 1500 and 2000 feet—it seems probable that at the axis of the Elk Hill anticline the oil-bearing zone is from 900 to 1400 feet below the surface.” Would you agree with that statement?

A. No; it is contradicted by his own report. It is shown to be erroneous. You will find, in the first place, upon page 13, the statement that this is a preliminary report, and not the way that a final report would be prepared.

Q. Then you think—

Mr. Mills—Let the witness answer.

A. On his map he shows a line of 5000-foot depth on the north side of the Elk Hills. The dip of the hills on the north side is just about the same as the slope of the surface. There has been relatively slight erosion—a few hundred feet altogether—so that taking that line on his map, his map shows the depth from the top of the hill is something like four thousand to forty-five hundred feet. Again, in his own paper, in speaking of the McKittrick formation—on page 82—as to a partial section of the McKittrick formation on the northeast flank of the Buena Vista Hills. There he finds a thickness of a little over 1500 feet. He says: “The lowest beds of this section are probably as far down in the series as any exposed in either the Elk or the Buena Vista Hills.” And again he says: “The oldest beds exposed in this vicinity lie in Section 11 at and immediately west of the road.” Now, on page 159 he gives a well which

is sunk near this Section 11 in which oil was encountered at 2600 feet. Now, there is 2600 plus 1500, [686] which is 4100, which checks with his 5000-foot line in a general way. His statement is contradicted by his own evidence, and is merely to be read as a statement in a preliminary report.

Q. And you are here maintaining that Mr. Ralph Arnold made a serious error in his prediction?

A. I say there is a serious error in the statement. His prediction on the map is in entire accord with the fact.

Q. You say that was possibly due to the fact that this was a preliminary examination?

A. A preliminary report, which was prepared in haste and in which he did not correlate his various factors.

Q. Even in preparing this preliminary report he used a great deal more time than you did in examination of the country, didn't he?

A. I don't know that he did in respect to the Elk Hills. In fact, from the map, I should say that he spent very little time in the Elk Hills. The report has covered in a few months a very large area. Parts of that work are in great detail; parts are only touched. That is to be expected from the character of the report. My wonder is that he accomplished as much as he did in the time. I think it is a wonderful piece of work considering the amount of time spent on it. But it is not perfect. Mr. Arnold's investigation was devoted to a very large territory.

My investigation was directed specifically to the matter of the Elk Hills.

Q. You spent pretty nearly four days in there, didn't you?

A. Something of that sort. I think I have testified exactly what time I spent there.

Q. Were you acquainted with G. H. Eldridge in his lifetime?

A. Yes sir.

Q. He was a geologist, wasn't he?

A. Yes. [687]

Q. And a very good one?

A. Yes.

Q. Have you likewise Bulletin No. 213 of the United States Geological Survey for 1902, in which at page 306 there is an article by Mr. G. H. Eldridge on the petroleum fields of California?

A. Yes.

Q. Did you examine that bulletin prior to forming your conclusions as to what was known in 1904 in the McKittrick district?

A. Yes. I examined everything that I could possibly find.

Q. In that bulletin at page 309 Mr. Eldridge states as follows: "The structure of the McKittrick district is that of a sharp anticline, an echelon with adjacent anticlines of the range. Along its axis is developed the fault mentioned, which locally is of the nature of an overthrust, the siliceous shales of the Monterey west of the plane being pushed up well

over the sands, conglomerates, and clays of the San Pablo. While this fracture and fold along which most of the producing wells of the district are located, are the most important of the region, other folds and faults exist in lines parallel with these, and at either end of the district one or another of them may become the chief fissure, yet apparently, so far as is at present known, without especial accumulation of petroleum." Did not that indicate to you that in 1902 it was generally believed by competent geologists that those parallel anticlines did not contain oil?

A. No; I think he refers to the anticlines in the hills to the southwest of McKittrick.

Q. Oh, that is your explanation? In 1902 a competent geologist could have determined as well as in 1904, couldn't he?

A. He could. [688]

Q. In Bulletin No. 309 by Mr G. H. Eldridge and Ralph Arnold, being a bulletin covering the Santa Clara Valley, Puente Hills and Los Angeles oil districts in Southern California, dated 1907, at page 196, Mr. Arnold makes this statement: "Anyone at all familiar with the conditions of occurrence of petroleum in the California fields knows that any but the most tentative predictions as to the location of the oil are extremely hazardous. The following conclusions, based on the evidence in hand, although lacking definiteness for obvious reasons, may be of some assistance to those carrying on development in the Los Angeles fields." Didn't that indicate to you that

two years later, after he made his first statement of that kind, that Mr Arnold was still of the opinion that any predictions as to the existence of oil in any district were extremely hazardous?

A. That is a very broad statement.

Q. Would you agree with it?

A. Not in detail. I think Mr Arnold would not agree with it in detail.

Q. Mr Arnold can speak for himself. Again, in a bulletin, being Bulletin No. 321 concerning the Summerland district in Santa Barbara county, Mr Arnold in 1907 makes this statement at page 56: "It must be continually borne in mind that absolute determination of the possibilities of occurrence or non-occurrence of oil in any one locality, by work on the surface, even when augmented by a study of the known underground conditions in developed territory, is not possible. The best that can be done is to calculate the degree of probability on the basis of a summation of indications and structural conditions." Didn't that indicate to you that in 1907 his original opinion had even become stronger?

A. No; that is a perfectly fair statement. That is what [689] you do. You calculate the probability and you calculate the probability in coal just the same way as you calculate in the probability in the Elk Hills. It is very great. It has become such a probability that it is a business proposition to develop it.

Q. You bring in coal again. There is no coal out there, is there?

A. Coal and oil occur in stratified deposits and are analogous in much the same way.

Q. There are other deposits that occur in the same way. For instance, placer gold?

A. They do not occur in the same way.

Q. Are you at all familiar with the placer gold deposits in the Tuolumne district?

A. Only in a general way.

Q. Don't they occur in the same way?

A. No.

Q. You don't know anything about them really?

A. I said I only knew of them in a general way.

Q. Would you agree with Mr. Arnold's statement made in 1907 that—the same page—"The absolute determination of the possibilities of occurrence or non-occurrence of oil in any one locality, by work on the surface, even when augmented by a study of the known underground conditions in developed territory, is not possible"? Do you agree with that?

A. What is the next statement?

Q. Do you agree with that?

A. No, not unless you read the balance of it. It is a fair statement to have the rest of the statement.

Q. Now, three years later, in Bulletin No. 398 on the Coalinga district, Mr Arnold says—and this is the bulletin in which he discusses the Kettlemen Hills field—at page 235: "It must [690] be borne in mind, however, that absolute determination, by work on the surface, of the occurrence or non-occurrence of oil in any one locality is not possible. The

best that can be done is to calculate the degree of probability on the basis of surface indications and structural conditions." Do you agree with that statement?

A. Yes. He is using it in the scientific sense absolutely. I have stated repeatedly that no reputable geologist would guarantee the presence of oil in any place. He would simply say the conditions are such as to warrant development, and those conditions in the Elk Hills are ideal.

Q. Do you know what Mr Arnold's experience has been in connection with the Kettleman Hills referred to in this Bulletin 398?

A. No, only in a general way. I know they are drilling there.

Q. And have found no oil?

A. No, but they are still drilling. I think they will get oil. I think the Kettleman Hills is good territory.

Q. Again, in 1910, in Bulletin No. 406, concerning the McKittrick-Sunset region, Mr Arnold makes the statement on page 205: "It must be borne in mind, however, that absolute determination by work on the surface, of the occurrence or non-occurrence of oil in any one locality is not possible. The best that can be done is to calculate the degree of probability on the basis of surface indications and structural conditions." Did it at all seem significant to you that he should repeat that statement year after year?

A. Yes. I agree with that statement. I believe

Mr Arnold's professional word is based on that statement. I think that the statement there of absolute determination is correct. The matter cannot be absolutely determined, but you can determine the degree of probability and that degree of probability is infinitely [691] greater than it can occur in any lode mining.

Q. Do you know anything about lode mining?

A. I have stated that I have not been in the lode-mining field.

Q. Why do you make such a comparison?

A. You have repeatedly re-questioned me on the subject after I had told you that I had not had personal experience. You continued the same line of questions which I answered to the best of my knowledge and belief, and I am answering now to the best of my knowledge and belief.

Q. Did I ask you to make any comparison at this time with lode deposits?

A. No.

Q. Then you volunteered that out of your lack of knowledge of lode conditions?

A. No, not at all. That is a very unfair statement. I have had quite a little training in lode deposits, but not in the field.

Q. The prediction made by Mr Arnold in Bulletin 406 of oil in the Elk Hills and other portions of the district have already been to a large measure disproven, have they not?

A. I think not.

Q. Mr Robert Anderson has succeeded Mr Arnold in the work of the United States Geological Survey in the California oil fields?

A. I think you can say so, in a general way.

Q. And he is a competent geologist, is he not?

A. Yes.

Q. In Bulletin No. 431, issued in 1911, concerning oil prospects of Cantua-Penoche region in California, and concerning the Coalinga oil district, Mr Anderson makes this statement, speaking of the first district—Cantua-Penoche: “For an [692] undeveloped region such as this, in which the character of the rocks makes it not impossible for oil to be present, but which for the most part has not been subjected to experimental test by the drill and in which the local tests made have been inconclusive, it is of course impossible to reach positive conclusions as to the occurrence of oil in commercial quantities at depths”. Do you agree with that?

A. I don't know that region.

Q. As a general statement?

A. It may be true in a certain locality and not in another. You will notice that he mentions no seepages, as in the Elk Hills region, and the occurrence of wells. There are several hundred wells. He mentions none of them. And in that respect it differs entirely with this region.

REDIRECT EXAMINATION

OF A. C. VEATCH

By Mr Mills:

Your attention was directed by Mr Lewers to a

statement of Mr Youle at page 1047 of the reporter's transcript, and I will read to you from the same page—beginning on the same page—a question and answer which was made later. “—That is, the opinions concerning the geology of that territory or any other territory have suffered a material change as a result of the work of the drill, haven't they? A—Not on your life. I say that the depth that a man would say—the depth of a formation—in that early day, that might thicken up or thin up and he couldn't see, was all bosh; and the fellows don't do it nowadays. Geologists, in those days, like LeConte, made predictions that were not true; but geologists since then have found out their mistakes and don't do it. I say, a geologist will say of those hills toward the Elk Hills and that whole [693] country, 'There is a good oil territory', but as to the depth, I don't see how they can tell.” I will ask you if in a general way you agree with that statement?

A. Yes. I think the depth can be approximated, but it is such an approximation that it is not an exact statement.

Q. Now, there is one method of determining the extent and persistence of imbedded stratifications containing oil, and you mentioned only one of the many ways for determination of such, where minerals occur in stratified deposits. You were asked by counsel if you were not the pioneer in the advancement of that simple process of determination, which Mr. Lewers was kind enough to characterize as the hori-

zon theory. Do you know whether that method has been applied in any other kind of lands in other stratifications, for example, in coal measures?

A. Yes; extensively used by geologists in classification of coal lands.

Q. I have here Bulletin No. 424 issued by the United States Geological Survey, and entitled "The Valuation of Public Coal Lands," by George H. Ashley, in which the author at page 7 states: "The object of this paper is to present briefly some of the facts on which the Department's regulations for classifying and valuing coal lands are based. The information already at hand in the Survey has been supplemented by data obtained in the fall of 1909 by the writer in Colorado, Wyoming and Utah, concerning the values of coal lands in those states." In a foot-note the writer of the paper says: "The writer, who is a member of the Survey's land-classification board, has for many years given special attention to the economics of coal. One of his earliest reports on this subject, bearing the title 'The Finances of Coal' was published in 1899 (23rd Annual Report of the Indiana Department of Geology and Natural Resources, pages 1490-1517)." Mr. Veatch, do you recognize any analogy [694] between the determination upon geologic evidence of the extent and persistence of coal measures and that of the persistence and extent of areas carrying oil?

A. Yes, in this respect: That you determine the persistence of the porous bed which contains the oil in an analogous way.

Q. Do you know whether that horizon theory, so expressed, has ever been used in the classification of coal lands?

A. It has.

Q. And you read at page 25 in this report: "Thus, on an undeveloped tract of land there may be only two openings on the coal, several miles apart, each showing workable coal. If this be the extent of the available knowledge, it may be thought safe to assume that only a few acres of workable coal exist around each of the two prospect openings. If, however, it may be inferred from the stratigraphy that the two openings are on the same bed, and if, by means of openings a few miles farther north, the coal can be traced with great regularity for fifty miles northward, and the same way in other directions, the geologist may be justified in assuming that the bed maintains a workable thickness under the whole tract, and the land may be valued accordingly, some allowance being made for uncertainty. Again, if it is known that the bed just considered is usually underlain or overlain by other regular workable beds, even if these other beds have not yet been discovered on the land in question, such knowledge would justify the conclusion that these other beds are probably present, a conclusion that would increase the estimated value of the land, though with a great allowance for uncertainty.

"If any or all of the beds are inclined to be pockety or irregular, the allowance for uncertainty must be correspondingly large. Where they are so irregular

or pockety that a large percentage or most of the land in developed areas is barren, [695] the unprospected areas must be rated as non-coal land until the presence and the thickness of the coal has been actually demonstrated.

“Another condition that renders difficult the valuing of coal land is common in the West, where knowledge of the coal beds is derived entirely from exposures along an outcrop that extends in a more or less nearly straight line. How should the lands back from the outcrop be valued? In the East and parts of the West the mountains form—that is, it follows in and out of one ravine or valley after another, zig-zagging back and forth in every direction. In such a region it is usually possible to get sections in different directions at right-angles to each other and to observe any tendency toward thinning in any direction. But in parts of the West where the topography is young and simple and the country is little dissected, it happens in many places that the outcrop extends, say, north and south, and there is little or nothing to show whether the coal holds its thickness back from the line of outcrop in an east or west direction. Under these circumstances experience has seemed to justify the assumption that the coal will run as far back from the crop at any one point as from that point to the nearest place along the crop where the coal becomes unworkable. Thus if a given coal has a continuously workable section for ten miles along the face of an escarpment, it is assumed that at the middle of such an outcrop the coal may extend back from the crop

for five miles and for correspondingly less distance as the two ends of the workable outcrop are approached, so that the area assumed to be workable is roughly a semicircle with a radius of five miles." I will ask you now, Mr. Veatch, whether you agree with that statement as applied to the geology of oil in a general way?

A. I do, modifying the factors in the geologic structure [696] which must be taken into special consideration, which has been done in this case.

Q. Have you made any special examination of Section 31 in Township 30-23? That was land which was patented to the Southern Pacific Railroad Company prior to the patent in issue in this case.

A. I have.

Whereupon the further taking of testimony herein was adjourned until Wednesday, May 15th, 1912, at 9:30 o'clock A. M.

On Wednesday, May 15th, 1912, at 9:30 o'clock A. M., the further taking of testimony herein was resumed.

REDIRECT EXAMINATION

OF A. C. VEATCH resumed.

Q. By Mr. Mills—Now, Mr. Veatch, what was the result of that special examination (referring to last question asked prior to adjournment yesterday, which question is read by the reporter) that you made of Section 31? You may state in general why you made the examination and what the results of your observations were as to the character of that land.

A. I followed the ridge down from McKittrick—the group of folds which lies south of McKittrick—until I was past the portion where the greater problem appears. And in the valley in section 36, which adjoins 31 on the west—36 of 30-22—I found a number of dips in the porous beds that overlay the diatomaceous shale, and a series of topographic forms—strike-ridges—which connected these dips across the country, and all those dips there are to the northeast. And on the other side of 31 and 32, on the southwest slope of the Elk Hills, I found very marked dips to the southwest, showing that this area [697] lies in the syncline between the Elk Hills anticline and the McKittrick anticline. In the southeast corner of Section 31 there is the end of a short plunging fold—a little minor fold in the bottom of the syncline—which is possibly slightly faulted. The dip observations in 36 enabled me to arrive at some approximate idea as to the thickness of that series in the Elk Hills.

Q. By Section 36, what do you mean?

A. In 30-22, that adjoins Section 31 of 30-23 on the west.

Q. On cross-examination, Mr. Veatch, you were asked whether you had ever seen a statement made by Josiah Owen that he was a geologist in the employ or on the payroll of the Southern Pacific Railroad Company. Will you state what paper you saw when you made that observation?

A. It was the transcript of testimony regarding a land contest before the land office.

Q. I have here a copy certified by the recorder of the General Land Office to be a true and literal exemplification of certain testimony of Josiah Owen, filed in a contest in the Visalia local land office, known as 0321, and I will ask you to read it for the purpose of identifying, if you may, the copy of the original that you saw.

A. I should say this was a photograph of the original record that I saw.

Mr. Mills—We offer this certified copy, exemplified under the seal of the General Land Office, in evidence as government's Exhibit Z.

I might ask you, in this connection, about what date was that contest?

A. I think it was in December, 1908.

Q. Do you remember the title of the case? [698]

A. No.

Q. Was it a case in which Mr. Owen was one of the contestants?

A. I believe so.

Mr. Lewers—I object to the introduction of the exhibit offered in evidence on the ground, first, that it is purely hearsay, without any identification indicating that it is in any way connected with this case and, consequently, that it is a fugitive extract from a larger record, omitting the context entirely, so that it is impossible to tell from it the entire circumstances under which the evidence was given and impossible to determine whether or not in addition to the extract offered there may not have been other testimony in-

dicating a possible connection with the issues in this action, in the matter of time. I object on the further ground that it appears from the testimony of the witness now on the stand, although it does not appear from the extract itself, offered in evidence that this was testimony given in 1908—four years after the time when the lands in question in this suit were patented to the Southern Pacific Railroad Company and, for that reason, it is not relative to any issue in this case because it does not follow because Mr. Owen may have been employed in 1908 incidentally as appears from the extract, that he was in 1903 or '04 or at any other time.

The certified copy of transcript of testimony of Josiah Owen last referred to and offered in evidence is marked "Plaintiff's Exhibit Z".

Mr. Mills—I will ask Mr. Lewers now whether he will stipulate into the record that Josiah Owen was a geologist either in the employ of the Southern Pacific Railroad Company or of the Southern Pacific Company, defendants in this suit, before the patent in issue was issued by the government to the Southern [699] Pacific Railroad Company.

Mr. Lewers—In the light of the character of testimony which has been introduced by the government, I must respectfully decline to stipulate in any way. I expect to show the actual facts when we come to our case.

Mr. Mills—I will also ask Mr. Lewers, counsel for all the defendants except the Equitable Trust Company, whether he is ready to stipulate that one E. T.

Dumble was employed as a geologist by either the Southern Pacific Railroad Company or the Southern Pacific Company prior to the issue of the patent in controversy in this case.

Mr. Lewers—I make the same reply.

Q. By Mr. Mills—Mr. Veatch, Dr. Branner testified that the word “mineral” now had a broader meaning than formerly. Do you agree with that statement?

A. Yes. In this way. That those who have attempted to restrict the word “mineral” in the manner explained in my former testimony, have found that their position was untenable, and there has been a gradual tendency to return to the original and common usage of the word. And in this respect it is correct to say, as Dr. Branner has said, that among scientific men generally the word “mineral” has a broader meaning than it did several years ago. Referring to the original and common use of the word, it is to be noted that it comes from the same root as “mine” and “miner”, words of great antiquity in our language. We have “mine” and “mineral”. It refers to any substance taken from the ground. Thus, in Bakewell’s Mineralogy, which was published some years before 1866, there is the statement that the term “mineral” is in common life generally applied to denote any substance dug out of the earth or obtained from mines. In connection with petroleum mining, it should be pointed out, that the earliest extraction of this mineral from the earth was [700] by means of pits or shafts. One of the earlier explorers in Bur-

mah, referring to a period about 1700, speaks of an Oleum Terrae obtained from such shafts which was so highly regarded by the rulers of the country that they reserved it for their own use and considered it more valuable than gold. Later Captain H. Cox visited this locality and, in 1799, used the word "petroleum" in describing this deposit. When the word petroleum was first used, I don't know, since I have not made a special investigation of the subject. I recall the reference to Burmah because I recently had occasion to look up the matter in response to an inquiry in reference to that country. In this country as early as 1833 B. Silliman, Sr., described the petroleum springs, using the word "Petroleum", in Allegheny county, New York, and the literature has been filled with references to rock oil and petroleum since that time. In 1865 the word "petroleum" was used in connection with the deposits in California by B. Silliman, Jr.

Q. On page 23 of Bulletin 46, issued by the Geological Survey of the United States, by Ralph Arnold and Harry R. Johnson, frequently referred to by counsel for defendants, I find this statement, under the heading "Land Classification": "The following areas within the McKittrick-Sunset oil region have been clasified as mineral lands and such of these as yet belong to the government have been withdrawn, etc." And on page 27 I find under that classification included all of Township 30 South, Range 23 East, which includes the lands involved in the suit, which

is thus classed as mineral land because of its oil value. Do you agree with that classification?

A. I do.

Q. It appears from that classification that, weighing fully all the uncertainties and all the structural conditions and all features connected with the accumulation of petroleum [701] in commercial quantities, Mr. Arnold was willing to go on record in that bulletin that all the lands in Township 30 South, Range 23 East, are mineral lands because of their oil value. Now, you have stated that you were chairman of the Oil Land Classification Board of the United States Geological Survey. Will you now state whether that board ever considered the statement made by Mr. Arnold in that bulletin in its attempt to classify those lands for their character?

Mr. Lewers—To which we object as calling for hearsay testimony as to the proceedings of any such board, and I desire to ask a preliminary question:

Q. By Mr. Lewers—Are those proceedings in any way a matter of record?

A. In part, yes.

Mr. Lewers—I object on the further ground that the record is the best evidence.

Mr. Mills—In response to that objection I will state that the witness has already testified that he was a member of that board and that he was chairman of that Oil Land Classification Board and must necessarily be familiar at first hand with the proceedings that he will now testify to.

Q. By Mr. Mills—I will ask this further ques-

tion of the witness in this connection: Whether that determination was made during the time you were a member of that board and while you were present.

A. It was.

Mr. Lewers—We nevertheless insist on our objection. A member of a deliberative body is not entitled to testify concerning the proceedings of that body merely because he is a member, if those proceedings are a matter of record, unless it is first shown that the record is destroyed or lost or for some reason is unavailable. [702]

Q. By Mr Mills—Mr Veatch, you may state in general whether that board agreed with the classification as set out by Mr Arnold in Bulletin 406, referred to by me.

Mr Lewers—To which we interpose the same objection.

A. It did. That classification was made before the bulletin was published, and the classification agrees exactly with the classification of the board, which was an approval of Mr Arnold's conclusion.

Q. And that bulletin was issued in 1910? At the time the report was considered by the Oil Land Classification Board, will you kindly give us for the purpose of the record the names of those who composed that board in the United States Geological Survey, at the time this classification was made by Mr Arnold, what their experience was and what they are now doing?

A. The members of the board at that time to the

best of my recollection were Ralph Arnold, Joseph A. Taft and myself. I was the chairman.

Q. Since that time what has become of Ralph Arnold?

A. He has severed his connection with the Geological Survey and is practicing as a consulting geologist.

Q. Where? At what point?

A. The California oil fields and generally throughout the country and the world.

Q. Do you know from your acquaintance with him and from your own knowledge that the advice of Mr Arnold has been sought by practical men in the oil business who invested any sums of money on his advice?

A. Yes; to the best of my knowledge and belief.

Q. By Mr Lewers—Based on what Mr Arnold told you?

A. In part.

Mr Lewers—I move that the statement be stricken out as hearsay. Mr Arnold is available. [703]

Q. By Mr Mills—Do you know from the published reports of Mr Arnold and from your own information where his experience has been largely confined to in the oil matters?

A. At the time I was a member of the board, his experience has been almost exclusively—as far as I know exclusively—in California.

Q. You have mentioned the name of Mr Joseph A. Taft. Do you know whether he has had any special knowledge of oil lands anywhere?

A. At the time that I was a member of the land board, he had knowledge of the mid-continental field, which is practically the Oklahoma, and possibly some of Kansas. His knowledge particularly related to Oklahoma.

Q. Has he been active at all to your knowledge in the classification of coal lands at the time this report of Mr Arnold was considered by that Classification Board?

A. Yes; the greater part of Mr Taft's work and one of his qualifications, and the reason he was appointed, was his very wide experience in coal land classification. He segregated the coal lands for the Indian nations in Indian Territory, and did extensive work in classifying and examining valuable coal lands on which there was no exposure of coal, in Colorado and Utah.

Q. And in connection with what companies, if you know?

A. That was for the government. The Utah Fuel & Iron Company had obtained through statements that these lands were non-mineral, patents to large areas in Utah, and they were recovered to the government through Mr Taft's testimony on the geological deduction that they were coal land.

Q. Do you know whether Mr Taft is now connected with the United States Geological Survey?

A. No; he resigned his position. My understanding is that he is in charge of the work of the Southern Pacific Company in [704] Colorado and adjoining regions under the supervision of Mr E. T. Dumble.

Q. You have referred to this company. What company was that?

A. The Colorado Fuel & Iron Company.

Q. At the time this report was being considered for the purpose of classifying the lands in 30-23, which includes the lands in this suit, were you at that time a member of the board?

A. Yes.

Q. In what capacity?

A. As chairman.

Q. Will you state what the method of that board was with reference to determining the official classification of these lands?

A. The data collected by any geologist in the field was presented to the board generally in the shape of his map, and he explained the geologic features of it to the board.

Q. You mean Mr Arnold?

A. In the case of Mr Arnold, yes. It was done in that way. Each map was presented and he explained the features, and the matter was passed upon from his statement. Questions were asked as to any point which might be in doubt by any member of the board.

Q. Can you state whether the conclusion of the board as to the classification of the land embraced in that list which includes Township 30 South, Range 23 East, and, of necessity, the lands in this suit, was reached after a careful investigation of the facts upon which the report was based?

A. Yes; that was the method of its classification.

The matter of Mr Arnold's statement in the matter.

Q. Now, Mr Veatch, so much has been said about this report, [705] that I will ask you now whether at the time the classification to which you have referred was made of this oil land classification board, there was any thought at that time of this present suit, or did you have it in mind?

A. No; I heard nothing whatever of it until very recently.

Q. Have you ever heard of this suit at that time?

A. No.

Q. Was the conclusion reached entirely independent of any consideration of a proposed suit, so far as you know?

A. Entirely so. The classification took no account of titles or vested titles. It was merely a classification of mineral lands without regard to ownership.

Q. Mr Veatch, at page 551 of the record—that is, the reporter's transcript—in the testimony of Mr T. E. Klipstein, who was secretary of the Eight Oil Company, it appears that Mr Klipstein testified to the land holdings in Kern County, California, of that company, as follows: "All of the north half of Section 31, all of the south half of Section 32 in Township 31 South, Range 23 East, M. D. M.; all of the south half of Section 4, Township 32 South, Range 23 East; all of Sections 26, 30, 32, 34, in Township 30 South, Range 24 East; all of Sections 20, 22, 24, 26, 28, 30, 32 and 34, Township 30 South, Range 23 East; all of Section 4 and the north half of Section 8, Township 31 South, Range 24 East."

Mr Mills—Mr Lewers, I desire to have these holdings of the Eight Oil Company, in which it has been testified that the geologists known as the late Josiah Owen and E. T. Dumble, who have been referred to in the testimony as geologists of the defendant Southern Pacific Railroad Company or the Southern Pacific Company, were interested, added to government's Exhibit I, so that the court may know what holdings that oil company, in which these gentlemen were interested, had in connection with [706] the lands in this suit. Have you any objection?

Mr Lewers—I have. Objected to on the ground that Exhibit I was introduced for the urpose of showing the conditions that existed prior to the granting of the patent in this case. I do not concede that Exhibit I does show the conditions, because it already contains matters that happened since that time. And I object to any change of that exhibit by adding things that, according to the testimony, did not take place until 1908, or '09, or '10, and I object on the further ground to anything being added to that map on the ground that it appears from the testimony of the various witnesses who testified concerning the Eight Oil Company that this land was located for fuller's earth and not for oil, and located subsequent to the granting of the patent in this case.

Mr Mills—You will observe, however, that it is called "The Eight Oil Company" with an underscore under the word "Oil".

Mr Lewers—I observed that very carefully.

Mr Mills—My only purpose in asking whether you made any objection to adding it to the exhibit was simply to simplify the matter for the court, so that taken in connection with the lands in suit, it might be introduced at once on one exhibit, showing the lands which these geologists must have believed to be good oil lands at the time they invested money in the Eight Oil Company.”

But, in view of your objection, which may or may not be valid, and in order to avoid any trouble, I will introduce another map showing it.

Q. By Mr Mills—I show you this map and ask you whether you had anything to do with the coloring of certain sections delineated on the map and, also, what the map is.

A. The map is a duplicate of the photographic copy of the base used on Exhibit I. And this map I have colored in in red the lands involved in this suit. [707]

Q. This is a duplicate copy of the base-map used by the government as Exhibit I?

A. Yes.

Q. Now, will you in some way, by colored pencil, indicate on this map the holdings of the Eight Oil Company as I read them: All of the north half of Section 31 and all of the south half of Section 32, in Township 31 South, Range 23 East. You are using a blue pencil, are you?

A. Yes.

Q. All of the south half of Section 4, Township 32 South, Range 23 East; all of Sections 26, 30, 32 and

34 in Township 30 South, Range 24 East; all of Sections 20, 22, 24, 26, 28, 30, 32 and 34 in Township 30 South, Range 23 East; all of Section 4 and the north half of Section 8 in Township 31 South, Range 24 East. Now, (witness having complied with Mr. Mills' request) will you make a proper legend indicating what the colors on that map mean? Mark it "Lands of the Eight Oil Company."

A. (Writing) "Lands of the Eight Oil Company in which it was testified to that the late Josiah Owen and E. T. Dumble, alleged to be geologists of the Southern Pacific Railroad Company and Southern Pacific Company, became interested."

Q. With the exception, Mr. Veatch, of what you have now placed on the map, is this map in all respects as fully qualified to be admitted in evidence as government's Exhibit I?

A. I think it is.

Mr. Mills—We offer this map in evidence as government's Exhibit AA.

Mr. Lewers—Before this is introduced in evidence and preliminary to any objection to the map itself, I ask that the legend put on the map be stricken out on the ground that it is a conclusion as to the testimony and involves a matter that is for the court to determine. [708]

Mr. Mills—I will say that the legend as it now appears on the map showing the names of the colored sections were as dictated by me as an aid to the court in determining what lands Dumble and Owen became interested in.

Mr. Lewers—That merely verifies my objection, and I renew it. And I object to the introduction of the map on the ground that it asserts matters occurring long subsequent to the patents involved in this action, and for that reason is not relevant to any of the issues in this case.

Mr. Mills—You admit, do you not, that the oil character of a portion of these lands marked in blue pencil, in which Professor Dumble and the late Josiah Owen became interested, according to the evidence already introduced, is relevant to the issues in this case, do you not?

Mr. Lewers—Not at the time to which this exhibit refers.

Mr. Mills—You may take the witness

RECROSS-EXAMINATION
OF A. C. VEATCH.

By Mr. Lewers:

Q. Mr. Veatch, when did you first read the transcript or any portion of it referred to in government's Exhibit Z, purporting to be part of the testimony of one Josiah Owen?

A. Probably two months ago.

Q. Where?

A. Here.

Q. How did you come to read that?

A. It was evidence by Josiah Owen on the land, and I thought it would be possibly interesting.

Q. On what land?

A. On this land somewhere in the Midway country.

Q. Anywhere in the vicinity of the Elk Hills?

A. It is near Midway. [709]

Q. Not in the Elk Hills?

A. No.

Q. And you read the record for the purpose of gaining information concerning the Elk Hills?

A. No; I wanted to see what he said there.

Q. Why did you want to know what he said?

A. I wanted to gain some idea of the ability of Mr. Owen as a geologist, in order that I might fairly judge regarding what conclusions he might have made prior to 1904. I know of no publication by Mr. Owen, and that was one way of checking the kind of work that he was doing.

Q. That is, you were anxious to know what Mr. Owen knew prior to 1904?

A. No; I was anxious to clear in my mind the ability of the man.

Q. Why was the ability of Mr. Owen of importance to you?

A. I was asked to report whether a geologist going into the Elk Hills in 1904 would have considered it oil land. I understood Mr. Owen had been in there and, in order to pass upon that matter intelligently, I wanted to know something of his ability.

Q. Was he, according to the issues that you had in your mind to determine, the only geologist to be considered?

A. I thought he was an important one because it was stated to me that he was an employee of the Southern Pacific Railroad Company and, therefore, would be an important geologist.

Q. You were endeavoring to ascertain what a competent geologist in 1904 would have thought?

A. Yes.

Q. Were you endeavoring to ascertain what Mr. Owen thought?

A. Only as I regarded him as one of the geologists that was in that region.

Q. Were you not endeavoring to find testimony connecting [710] Mr. Owen in some way with this case?

A. Only in the way that I have stated.

Q. Well, you were, were you not, endeavoring by every means in your power to find testimony connecting Mr. Owen with this case?

A. It was stated to me that he was in the hills.

Q. Were you not endeavoring to find testimony connecting Mr. Owen with this case?

A. Only in the way I have stated.

Q. Where else did you endeavor to find testimony connecting him?

A. I looked over the geological literature to see if he published anything.

Q. You were anxious, were you not, to find some connection with Mr. Owen?

A. No; I have no personal interest in this case in any way.

Q. Where was it that you examined this record?

A. In Los Angeles, in Mr. Mills' office.

Q. The entire record?

A. I think so.

Q. And then you examined more than this mere scrap which has been introduced in evidence?

A. Yes.

Q. And did you in that record find any discussion of the Elk Hills?

A. No.

Mr. Lewers—Have you that record, Mr. Mills?

Mr. Mills—I don't know whether I have it or whether I returned it to the General Land Office.

Mr. Lewers—If you have it I would like to have it.

Q. Do you find anywhere in Exhibit Z any statement showing the knowledge that Mr. Owen had of the Elk Hills? [711]

A. No; that was brought out merely on your question to me the other day.

Q. Was it brought out by any question of mine?

A. That is my impression.

Q. Wasn't that purely a voluntary statement on your part interposed for the purpose of bringing Mr. Owen into the case?

A. I think not. The record will speak for itself.

Q. Isn't this in your opinion and to your understanding simply a scrap or extract from that testimony for the purpose of showing that Mr. Owen was connected with the Southern Pacific Railroad Company?

A. The purpose for which that is introduced the attorney can speak of.

Q. Did you not consult with the attorney and talk over the introduction of this particular scrap of evidence?

A. I don't believe so.

Q. Did you not call his attention to this particular scrap of evidence?

A. I did in the testimony that I read over.

Q. And you called his attention to other matters which would tend to show the connection of Mr. Owen with the Southern Pacific Railroad Company?

Mr. Mills—I object to that question and any further questions of this witness of that character, for the reason that the witness has stated that he has no personal interest whatever, and that he is brought here as a government witness in a case in which he can have no possible feeling one way or the other except as an upright citizen to see that right is done. This is no controversy between individuals.

Mr. Lewers—I propose to show before I get through with it that it is.

Mr. Mills—You will have some difficulty in showing that. [712]

A. I do not recall specifically. I may say in a general way that I have endeavored in every way within my power to get the facts in the matter in order that there might be no injustice done in any way. In other cases and in other lines my opinion was asked and the statement was made that if I did not feel that they were mineral lands, the matter

would be dropped. In going over this matter from all sides that I possibly could, I felt that these were mineral lands and that the railroad company must have known it. That is merely my opinion, and, as such, I thought they were not entitled to it.

Q. And after you reached that conclusion you endeavored, so far as was within your power, to assist in gathering evidence to show those facts?

A. Simply gathering the truth and endeavoring to determine what the truth was in the matter.

Q. What you regarded to be the truth?

A. No; what the truth is.

Q. That is, you do not believe that in any of your investigations you could possibly be misled or in error as to what the truth is?

A. Oh, human beings are not infallible. But, to the best of my ability, I have carefully tried not to be misled in any particular.

Q. Does the fact that this extract, Exhibit Z, shows apparently that Mr. Josiah Owen in 1908 was on the payroll of the Southern Pacific Railroad Company, have any scientific value to you?

A. No; I have explained that the reason I read that testimony was to form an opinion of Mr. Owen's ability as a geologist.

Mr. Mills—Why don't you ask the witness the question what his ability was?

Q. By Mr. Lewers—I call your attention to the first por- [713] tion of the page contained in Exhibit Z and to a checkmark at the top, and ask you if you made that checkmark?

A. No; I did not.

Q. Was it there when you first examined the exhibit?

A. I don't remember.

Mr. Mills—If you ask me who made the checkmark, I will tell you.

Mr. Lewers—If you want to go on the stand, I will ask you a number of questions.

Mr. Mills—You have been testifying into the record without going onto the stand. I merely offer a suggestion.

Mr. Lewers—I suggest, in the meantime, if you have any objections to make, make them; if not, don't say anything. That is merely a suggestion.

Q. How long were you a member of the classification board to which you have referred?

A. Two years. I was the first chairman of the board and was connected with the board till I went to South America.

Q. When did you go to South America?

A. In the fall of 1910.

Q. When was it that the board passed on the recommendations of Mr. Arnold contained in Bulletin 406 as to the withdrawal of certain lands?

A. To the best of my recollection, it was the spring or summer of 1899.

Q. And Mr. Arnold, you say, was a member of that Board?

A. Yes.

Q. And he explained his reasons and grounds?

A. Yes.

Q. And you acted upon them?

A. Yes.

Q. You did not veto any of his suggestions in any respect? [714].

A. That I don't remember. The matter was gone over till we reached a common conclusion.

Q. Were not your instructions as members of that classification board to withdraw all lands that might by any possibility in the next hundred years be developed?

A. Are you speaking of classifications or withdrawals?

Q. Withdrawals. My question is very distinct.

A. As to withdrawals. These are classified lands and there are large areas withdrawn pending field work, and which may contain large areas which are not oil lands. There is a great distinction between a simple withdrawal which does not assert that it is mineral land, and a classification which does.

Q. Let us take your classification then. The more limited area, as you put it. That was your test from the economic side as to what lands should be classified as oil lands?

A. In oil lands it was rather the conservative basis of the depth to which drilling had already reached. I think that probably should be extended to a much greater depth, so that it may be co-ordinated with coal in which we classify coal lands at much greater depth than they are now mining.

Q. That does not answer my question. What lands did you classify as oil lands?

A. In general, lands up to the 5000 feet of depth.

Q. Did you classify as oil lands lands that you thought or that were reported to you might contain oil, or lands upon which oil had actually been discovered or was known to exist?

A. Lands on which the geologic evidence indicated that oil occurred.

Q. That oil occurred or might occur?

A. That oil occurred. It is a matter of geologic deduction. If the classification were limited to only the area proven by actual wells, it would be a very small area, and even then [715] your question, to refine it to the utmost, would be whether a well that actually yields oil would actually prove the ground for more than the ten inches at the bottom of the well.

Q. Then, in fact, you did in classifying as oil lands include lands that you thought from merely surface indications might contain oil?

A. Which we believed contain oil.

Q. From surface indications?

A. From geologic evidence.

Q. And that in many if not most of the instances was merely surface indications—what you call geologic evidence?

A. Yes; extending over a wide area. Geologic conditions on the surface of a limited area might not allow you to arrive at an exact conclusion. But when you take the evidence of a wide area, the conclusion is very sound.

Q. And in your classification of oil lands made in 1909 in the vicinity of McKittrick and in that coun-

try generally, you included portions, if not all, of about 70 townships, didn't you?

A. I don't remember.

Q. Have you Bulletin 406 there?

A. Yes.

Q. Will you look at page 24?

A. Yes.

Q. Is it not a fact that beginning at page 24 of Bulletin 406 and extending to near the middle of page 31, there is a list of lands withdrawn covering practically 70 townships?

A. There is a portion of those that are withdrawn and not classified, and I have explained the difference between classification and withdrawal before.

Q. Is it not a fact that beginning at page 24 and extending to the middle of page 29, in fine print, there are 55 townships [716] classified as oil lands?

A. I have not counted them. There may be portions of that number. But if you will check it I think you will find not more than six or ten—1, 2, 3, 4, 5, 6—in which the total township is classified.

Q. How many in which the greater portion is classified?

A. That I would have to check over.

Q. Why was it that in certain townships you only classified a portion of the township?

A. Because the remainder was not oil land or on which the evidence was not sufficient to classify. They may have been either withdrawn or left as they were.

Q. And they may have already been patented, may they not?

A. In this classification no account was taken of the title to the land at all. They were classified irrespective of the title.

Q. And was any account taken of whether any productive developments had been going on on any of that land?

A. Yes; that follows in the geologic determination of the region. The geologic determination takes into account all the economic facts.

Q. And you have since ascertained that over a great portion of this land included in your classification of 1909, absolutely no oil has been discovered in paying quantities?

A. I should say that the great part of it is not yet developed. It is not shown that it is not oil land, by any means.

Q. You mean it has not gone deep enough?

A. There are several factors involved: The factors are depth, the factors of faulty well drilling, I have explained; and I have explained the small production which means to me ultimate development when the present large supply is reduced, and the price of oil will increase and will justify the development of [717] a portion of those other areas which are not now developed. I might add that I regard the Elk Hills, and did at the time,—that in the best of the territory there is a portion of that territory lying down the dip below this porous upper member of my three-part series, in which your oil would be

in the lower sands at considerable depths. That land I regard as very much less valuable than the lands in the Elk Hills.

Q. In your determination of this classification of oil lands, did you here again contemplate possible remote future developments?

A. We thought it would occur within fifty years.

Q. Or might possibly be not until a hundred years?

A. That, of course, is remotely possible; but we believed it would be within fifty years.

Q. Then your classification was in no sense limited to lands that could have been developed in 1909 with the means then at hand?

A. No; we considered the matter of immediate value very carefully in a number of board meetings and the advisory committee of the board, and it was found on carefully reviewing the situation that there might exist temporary conditions which would make property unworkable which would be considered a good mine; and that taking the question as a whole, as in the case of coal where 95 per cent or more of the coal lands, and great thick seams of good coal—

Q. I am asking you about oil. I don't care for a constant reference to coal.

Mr. Mills—You may finish the answer.

A. About 95 per cent or more of the coal land in the west would be classified as non-coal land, even though a great amount of it in acreage was being acquired by coal companies for the purpose of holding it for that very production. [718]

Q. By Mr Lewers—You testified, did you not, that in your opinion whatever oil there might be in the Elk Hills might possibly be four or five or even six thousand feet deep?

A. Yes; that is possible.

Q. And might be even deeper?

A. Yes; there are, I think, some deeper layers.

Q. And in passing upon its value as oil land, on account, possibly, of such great depth, you took into consideration the chances that in the next twenty or fifty or more years means might be found for getting the oil at those depths?

A. I think as a matter of fact means exist now. This depth limit to 5000 feet was fixed before there were wells in California of that depth then. And, considering the world at large, there are quite a series of wells in Galicia in rather soft strata—I think there are fourteen or fifteen or probably more—which have an average depth of 5000 feet, and a number of them are over. And of those wells four of them are producing only thirty-five barrels a day, and the maximum is producing about two hundred and fifty or possibly three hundred. And yet those people are now sinking other wells in the same region for that yield of oil. Now, in the next twenty years I think it is reasonable to think this land will be developed. I would put it much less than fifty years.

Q. You answered the other day that it might not come within fifty years, but it might come in a hundred years.

A. I should say that that is the outside limit. I

think the chances of it coming in twenty years are much greater than its coming at a time longer than fifty years.

Q. In Bulletin No. 264 of the United States Geological Survey, being a record of deep well boring for 1904 by M. L. Fuller, E. F. Lines, and A. C. Veatch, published in 1905, at page 14 we find this statement in an article written by Myron L. Fuller: [719]

“The depth to the productive rock is of great importance as affecting the success of a well. For a shallow well a relatively outfit can be used, but for deeper borings heavy and more costly machinery and rigs are required. These, with increased cost of fuel, outfits, casing, and greater difficulty of manipulation, make the cost of a well increase rapidly with depth. The amount of oil or gas which would give a good profit on the investment required for a 1000-foot well might not be sufficient to warrant the sinking of a 3000-foot well.” Do you agree with that statement?

A. Yes.

Q. On page 16 of the same bulletin, occurs this: “Nothing can be further from the truth than the common fallacy that oil, gas, water, or whatever the driller may be in search of, can be had if the hole is only drilled deep enough. In unaltered porous rocks oil and gas may occur, within certain limits, regardless of depth; but all rocks, of whatever character, buried deep enough, especially if subjected to the powerful compression incident to the formation of

mountains, become altered through the influence of heat and pressure, often into more or less crystalline masses. In such rocks the volatile substances, such as the hydrocarbons, are expelled and it is useless to look in them for deposits of oil or gas." Do you agree with that statement?

Mr Mills—I object to that question unless the whole pamphlet is submitted to the witness.

A. I agree with that statement. The region that he refers to is entirely different from the region here. The matter that it is a common belief that if you go deep enough you will get the substances, is not the statement of the view of a scientist that you will get them. For instance in Long Island you have a series of underground waters which dip gently [720] towards the sea. You drill a well at one place 900 feet and you get a flowing artesian well. If you drill a well a few miles distant, because of the dip of the rock you start in granite below the base of this porous layer, and you may drill to China without ever reaching that layer. The depth at that point does not affect the other. In this case of the Elk Hills, I have carefully considered all matters there. Those are evident to any geologist working in the field. The depths of rocks in which there is no pore-space, or in which the pore-space has been entirely closed up by the superincumbent pressure, is a matter of ten miles or more and is much greater than any depth I considered in this region. The areas in which there is no pore-space in the rock due to metamorphic action and where the rocks are now at the surface due to

uplifting and erosion, are entirely different from the character of rocks that occur in this region. These are sedimentary strata practically unaltered, and in which none of these things that Mr Lewers has mentioned apply.

Q. You think, then, that Mr. Fuller when he said that in the bulletin that I referred to, was speaking of wells ten miles or more deep?

A. No; he said there were two classes. There were the rocks at the surface which have been subject to metamorphic action, and I illustrate that by the condition at New York where the granite and other metamorphic rocks are at the surface. And you start drilling there and you will not get the cretaceous sands which yield the water at Long Island. You start below the bottom of the bed. And, similarly, if you go east of Bakersfield and start drilling in the granite rock there, you would have an entirely different proposition from drilling in the sedimentary beds which underlie the southern end of the San Joaquin Valley. [721]

Q. Those would be igneous rocks, would they not?

A. Yes, in a general way.

Q. On page 16, immediately following the portion which I read, referring still to the same bulletin, Mr. Fuller states: "It is also useless to seek for oil in rocks of igneous origin—that is, those which have once been molten—for the conditions of their formation are such as to preclude the formation or retention of oil or similar substances." Does not that indicate to you that Mr. Fuller differentiated between the two

classes and that his first statement concerned sedimentary rock?

A. No; his second statement is not true, to start with. It is too broad a statement. You see, there are two things. If the hydrocarbons were there before the intrusion, the heat might drive them away; but if after the intrusion has come into the rock—supposing it is slightly porous and it cools down entirely—the oil will go into that porous rock, or the water either. The oil and water do not differentiate in beds that way. The only difference from a geologic standpoint is where it goes into porous sedimentary strata you can from geologic knowledge and investigation determine how that porous bed runs within relatively correct limits. But where you are working with an intrusion, the intrusion may be very irregular. It does not follow the same sort of laws that sedimentary rocks do. It is also possible to get oil and water in granite, although you would not look for them there. There may be a weathered surface of granite which is slightly porous.

Q. The question was whether or not in your opinion Mr. Fuller had not differentiated between igneous rocks and sedimentary?

A. No. And I think also his second statement is erroneous.

Q. You do not agree with his second statement as it stands? [722]

A. No; it is too broad.

Q. Did you determine, Mr. Veatch, whether or not

the Elk Hills was a marine formation or fresh water, or part of both?

A. No, I did not. My opinion is that it is probably both.

Q. Where you are assuming that you have beds of this diatomaceous shale being deposited, that must have occurred at a time when the San Joaquin Valley was an inland sea?

A. Yes, broadly speaking.

Q. And from what source at that time was the greater amount of sediment derived that was deposited in the beds of the San Joaquin Valley?

A. Speaking of the deposition of the diatomaceous beds alone, it was derived from the marine algae blown down by winds and currents.

Q. I am asking you at the time those beds of shale were deposited, where did the greater amount of the sediment come from?

A. The diatomaceous beds are practically all diatoms, and they must have come from the marine algae.

Q. And nothing is between any of those laminations?

A. Yes, there are in places. I thought you were talking about the great thickness of pure diatomaceous shale.

Q. I am speaking of the deposit of Monterey shale in the bed of that inland sea and of other deposits underlying and overlying the Monterey shales in that inland sea; where did the greater amount of material of those deposits come from?

A. I don't know.

Q. Are you able to determine?

A. I think it could be determined by field examination.

Q. Is there anything in the topography of the country at the present time that would indicate where the greater portion came from? [723]

A. Only in a broad general way.

Q. Taking it in a broad, general way, what would you say?

A. I think it is probable that a portion of the Sierra Nevadas were above the surface of the ocean, and supplied some material. I think it is possible that there may have been some ranges to the west of this ridge that I call the Temblor Range which were higher in the hills than the Elk Hills, and those surrounding hills. There are fragments of a peculiar kind of lava, and the nearest place that I have seen from which it could be derived is over west of the Temblor Range. That would point to the land in that direction.

Q. What is the difference between sediments deposited in the bed of the sea at a distance from their origin and those deposited close to shore?

A. The nearer shore deposits are coarser.

Q. And those that are farther out are usually quite fine?

A. If you have a stable surface, which seldom happens, you may have your fine stuff all accumulate at some distance in the sea, and the coarse stuff near the shore. But the floor is constantly shifting, and you

will have a floor space extending over great distances.

Q. As you get further from the shore along the same bed of sedimentation, it becomes finer?

A. Not necessarily.

Q. Well, generally?

A. I wouldn't say necessarily generally. We have coarse beds which are of enormous extent—

Q. Are there any such coarse beds under the Elk Hills?

A. I think there are.

Q. Have you determined whether there are or not?

A. That is, from geologic evidence that is my belief.

Q. From looking at the surface of the ground?

[724]

A. That is ample in taking the whole geology of the country.

Q. You say you have not examined the logs of any wells, and you don't know what they show?

A. No, except to see some coarse stuff around one or two rigs there that evidently came out of the well.

Q. You didn't know how deep they came from?

A. No. And I know the surface of the hills contains some very coarse material which has been transported as far from any probable source as the beds which lie at the base, and the matter of distance from the shore line, the coarseness of the material under those conditions would be the measure of the coarseness of the lower portion.

Q. When there has been a deposit along a shore or any other point, of sediment to a depth of from three to six thousand feet, made up partially of fine silt, partially of coarser gravel conglomerate, and that sedimentation extended over quite a long period of time, what changes in the structure of the strata in that deposit takes place?

A. None would necessarily take place.

Q. Is it not a fact that in all such cases where such sedimentation has been going on until it has built up to the depth I have indicated, there is a marked subsidence and crushing and compressing of the strata on the lower side of that deposit?

A. I don't think that necessarily follows.

Q. Do you know whether that follows in the Elk Hills?

A. What sediment are you talking about on the Elk Hills?

Q. The whole Elk Hills are sedimentary, are they not?

A. I believe so. I don't believe there would be compression there that would affect the oil values.

Q. Is it not also a fact that when there has occurred in some past geological period of time processes which have created or constructed a syncline or valley and afterwards that valley [725] has been filled up by sediment carried in there through the processes of erosions that that sediment after it acquires a thickness of from three to five thousand feet will settle or subside, and that in doing so it will form anticlines near the surface?

Mr Mills—I object to this question and move that all questions of speculative nature along the same line be stricken from the record because they serve only to burden the record with immaterial matters, and shed no light whatever on the issues in this case.

Mr Lewers—I am willing to have all this speculative evidence go out of the record.

Mr Mills—Why don't you quit asking speculative questions?

Mr Lewers—You started it. I admit all this oil business is a gamble.

Mr Mills—If you examine the direct testimony carefully, you will find it is limited to questions on the issues in this case.

A. I should say from your statement of the matter that it would not follow. The compression of a sand bed beyond its original thickness, to any degree that would produce an anticline or a syncline, is a very peculiar proposition.

Q. You think that is not a possible situation?

A. No. If that sand bed contains some soluble material and you took it out by solution, you would have some substance which would produce peculiar little distortions such as occur in Northern New York where you have a solution of salt. But there is nothing in any way parallel with the conditions that exist in this locality.

Q. Is there any reason, Mr Veatch, why conclusions based upon examinations of other oil fields in Wyoming and West Virginia and Pennsylvania or

in Texas cannot be applied to the [726] California oil fields?

A. No two oil fields are exactly alike, so far as my experience shows. But all training or experience of geologists in stratigraphic work fit in for determining the conditions in a new field. Each field must be taken and worked out by itself as a matter of stratigraphic geology. The more experience a man has in stratigraphic geology, the more capable he is of forming a correct conclusion, and the more quickly he can form that conclusion.

Q. The question that I want to get at is this: Whether or not a geologist who has become thoroughly familiar with what you have termed stratigraphic conditions in an oil field, whether it be in California, Texas, Wyoming, Pennsylvania, Indiana or anywhere else is, in your opinion, if he is a competent man, able to determine what you have defined as the oil value of territory in his region?

A. The only difference that could exist between us is the definition of "competent." He would not be competent unless he could, according to my sense of the word "competent." I can imagine a man who has had experience in one region—limited experience—in hard rocks only, for instance—who would probably be very much at sea when he was put into the soft strata the first time; and it might take him a long time to work that out, a time that would be much in excess of what a man competent along that line could do it in. But if he was a good man, he would finally find his feet and get it.

A. Were Ralph W. Stone and Frederick G. Clapp competent?

A. Their experience, so far as I know, was limited to hard rock material in eastern United States. They had no experience in tertiary or cretaceous formations.

Q. Are they competent geologists?

A. For what purpose? [727]

Q. In their particular fields.

A. On oil conditions in Pennsylvania?

Q. Yes.

A. Yes.

Q. Now, in Bulletin No. 304 of the United States Geological Survey, being a bulletin on the oil and gas fields of Green county, Pennsylvania, by Ralph W. Stone and Frederick G. Clapp, issued in 1907, at page 83 under the head of "Prospective Territory," this statement is made:

"In the preceding pages a few hints have been given in regard to further development of the gas and oil fields in this country. It is hazardous to make suggestions of this sort and they should be considered as only of speculative value. The writers are of the opinion that there are yet some areas of considerable extent which might well be tested. The occurrence of gas and oil cannot be foretold, but the following localities are proposed for consideration." Would you agree with that statement?

A. In a broad way. And I might add that Mr. Clapp has since resigned from the Survey and is now

advising Pennsylvania operators regarding those same fields and is getting some very valuable wells, and his deductions have been shown to be correct. And another man who worked in the same region, Griswold, who in printing a paper by the government for distribution, where he had been very cautious about stating the matter, those cautious statements have been so thoroughly proven to be correct that he is now employed by a large number of oil firms at Pittsburgh, all over Ohio, West Virginia and Pennsylvania, and his work is very satisfactory, thoroughly demonstrating the correctness of his opinion.

Q. Mr. Griswold?

A. Yes.

Q. What are his initials? [728]

A. I don't remember them.

Q. Isn't it possible, Mr. Veatch, that where you have to chance a guess from surface indications whether there is or is not oil, that occasionally and, possibly, frequently when there are only two guesses you are going to hit it right?

A. I am speaking simply of the percentage of successful results. No man is infallible in any kind of business. No man of any scientific reputation pretends to be infallible. But a man who is competent will hit it right the greater number of times. His conclusion is based upon scientific facts.

Q. Then, if he does not hit it the greater number of times, you would say he was not a competent geologist?

A. I think that would follow. If he comes to you and tells you, "This is a good oil proposition," and tells you ten times it is a good oil proposition, and nine times you find he is wrong, I think he would be thoroughly condemned. But when such a man as Mr. Youle tells you it is a good oil proposition and the whole thing proves out, I think there is a different conclusion.

Q. Mr. Youle said the only test of an oil territory is the drill.

A. I agree with that in the way that I have explained. I think there is no conflict whatever.

Q. And Mr. Youle also stated in a portion of the testimony read to you yesterday that geologists who understood their business no longer make predictions.

A. I have explained that matter before. Shall I go into another explanation?

Q. No, I think not. In your direct testimony at page 1371, in speaking of whether petroleum is a mineral or not, you made this statement: "In attempting to give a scientific meaning to the word 'mineral,' some scientists have defined a mineral as any substance of inorganic origin of definite chemical composition occurring naturally within the earth. If this definition is followed out strictly, it would exclude everything in which organic matter has been a factor in its formation. Many deposits of iron ore will be excluded." As a scientific man, do you think that is a fair statement?

A. Yes; I think that definition followed logically to its ultimate conclusion leads to an absurdity.

Q. And you think the instance that you have given in reference to iron is a fair comparison by which to determine whether oil is mineral?

A. I simply say if the matter is followed out strictly, that is, to the extreme, it leads to an absurdity.

Q. How is iron formed when it occurs in beds as you referred to?

A. You take the matter of iron carbonate, for instance, in whatever soluble form it may be carried down to the lake, there is a reaction between that and vegetable matter or products of vegetable material. It is called a bog ore for that very reason, and the result is a precipitation of the iron as an iron carbonate at the bottom of the lake. The vegetable matter is a factor in the formation of the ore.

Q. What did the iron come from originally?

A. I don't know. It may come in different forms.

Q. Is it not a fact that that iron occurs in a great many rocks in the shape of ferric oxide?

A. Yes.

Q. That is a higher oxide of iron?

A. Yes.

Q. And is it not a fact that that is generally insoluble?

A. Yes.

Q. And when it comes in contact with decaying organic matter, a portion of the oxygen, in the pres-

ence of carbonic acid [730] gas, is thrown from that iron and forms a ferrous oxide?

A. I don't know that the presence of carbonic acid gas is necessary. But, in a general way, there is a reduction of the iron from ferric to a ferrous state, due to the action of vegetable matter.

Q. And when it is in its ferrous state it becomes soluble in any medium where water is present and where carbonic acid gas is present, and forms iron carbonate?

A. I don't know that that is necessarily true.

Q. It does form iron carbonate?

A. It does when it comes down to the lake. But my general recollection is—it is a long time since I dabbled in chemistry—it forms a compound with humic acid and comes down in a soluble form. If the carbonate was soluble, there would be no precipitation in your lake.

A. And doesn't it later, when it has an opportunity to acquire more oxygen from any source—the air or otherwise—form ferric oxide again and deposit as such?

Mr. Mills—We object to any further examination along this line because it tends to obscure the issues in this case, as many of the questions have repeatedly done, and it is wholly irrelevant to any issue in this case whatever.

A. You have frequent changes of form in the various iron salts, generally, with the aid of vegetable matter, which is an important factor in the reaction.

Q. By Mr. Lewers—Isn't the iron deposited in the form of bog iron ore, in the form of ferric oxide?

A. Bog iron ore, I think, is a carbonate.

Q. Isn't it a fact that the iron is deposited in its original form and that the organic matter simply furnishes a means to assist in the change or transition period—

A. I should say it is not in its original form. You have [731] started, certainly, with ferric oxide, and you have got as a result the carbonate. They are not the same form.

Q. You think carbonate is the final form of bog iron?

A. Yes.

Q. And not ferric oxide?

A. Certainly it is not an oxide; it is a carbonate.

Q. You are positive of that?

A. Yes.

Q. Does any such process occur to your mind whereby petroleum is in existence and is simply deposited as the result of organic action?

A. It has been argued by a number of scientists that petroleum is produced by direct reaction on the iron carbides.

Q. Do you believe that is true in California?

A. No.

Q. Then what does produce the oil in California?

A. I have stated several times that it was not susceptible of exact proof, but that it comes from the diatomaceous shales and the fact that there is the greatest thickness of the diatomaceous shales in this

whole region in the Elk Hills country makes that the most valuable oil territory from that line of argument.

Q. Did I ask you anything about the Elk Hills?

A. It could mean nothing unless it is related to the Elk Hills.

Q. You are anxious to tie it to the Elk Hills?

A. That is what it should be tied to.

Q. Very well; we will tie it to the Elk Hills. What does the oil come from in the Elk Hills?

A. I believe it comes from that series of diatomaceous shales.

Q. Do you know whether there is any oil in the Elk Hills? [732]

A. I believe there is. I have stated that repeatedly.

Q. But you don't know it?

A. I stated that I would not guarantee a man to find oil. No reputable geologist would. But the conditions were such as would justify him in spending money in acquiring the land and developing a well; that it is certainly oil land.

Q. I think I have heard that before. Is petroleum as it exists in California—I mean petroleum that we do know exists—original mineral in its origin or is it organic in its origin?

A. I think it is mineral in its origin.

Q. From what mineral does it come?

A. From the diatomaceous earth.

Q. And diatoms are mineral?

A. I think so.

Q. And not organic?

A. A thing can be both organic and be a mineral. That is, of ultimate organic origin.

Q. Are diatoms organic?

A. They were originally part of organisms.

Q. They were alive originally?

A. No; the material around them was alive.

Q. They were not?

A. They were part of the material. To say that a thing itself is alive would be untrue.

Q. Suppose upon a favorable bed of sand along the sea shore—in the early history of the Elk Hills, we will say, there was a favorable bed of sand, when that was an inland sea in the San Joaquin Valley, and we will further assume that that sea had a hundred whales, and those whales by some force of nature were thrown up on that bed of sand and died there, and the oil in those whales' carcasses leached out into the sand on that shore and later further deposits came and buried those sands, would [733] you say that that oil from those whales in those sands was mineral?

Mr. Mills—Are you going to contend seriously that petroleum came from a hundred whales?

Mr. Lewers—If there is any there it must have come from those whales.

Mr. Mills—If that is part of your defense, I would like to know it.

A. I should say your supposition is impossible.

Q. By Mr. Lewers—Kindly take my supposition.

A. I cannot, because it is impossible. I cannot conceive it. If your whales are on the seashore, thrown up on the bed of sand, and decomposed, the sea water will take off every bit of oil that is there. It won't stay in the sand.

Q. Is that the way you answer my question? Is that the only answer that occurs to you? I am asking you as an expert, and I am making an assumption which is a possible one, though to you it may not be a probable one—

Mr. Mills—What he knows about whales.

Q. —That the oil from a hundred whales does leach out into the sand—

A. Are you going to have your whales buried before this leaching occurs?

Q. It makes no difference whether they are buried or not. The oil from the whales goes into the sand.

A. It cannot unless they are buried.

Q. Let us assume that they are good oily whales to start with, and then that is covered over. Would you say that if you found that oil in that sand at a later period that that oil was mineral oil?

A. I would say yes in a general way. But I want to explain how that could happen. If you have your whales thrown up on the [734] shore as you describe, and you have them then covered with a thick layer of clay before these whales decompose, and those things are buried there, you have a slow distillation of the oil which is entirely different from the distillation of sperm oil in the kettles on a whaling ship.

You have various chemical reactions taking place. There is salt water in the bed. There are clays above it. And you have a resulting oil which is mineral oil and very different from sperm oil.

Mr. Mills—I want to interpose an objection here to all questions tending to develop counsel's argument of the whale theory as connected with the Elk Hills.

Mr. Lewers—I am coming to something else that you can understand.

Mr. Mills—Perhaps you had better get to something else and get to a lobster theory. If you seriously contend that the oil taken from that Associated well came from whales, I would like to know it. If not, we ought to discontinue it because it is becoming slightly trivial.

Mr. Lewers—I believe the entire theory announced by the government is in that respect more than slightly trivial.

Q. Then, even though the oil in its origin is organic—from animals—you think that the process of distillation has gone on and it becomes mineral?

A. Sure it does. You take a bed of coal, for an illustration. A coal bed is not a growing tree, although it may have been derived from a tree. It certainly is a mineral and certainly is not a tree.

Q. You have no other comparisons except coal that occur to you?

A. Yes. Take a bed of limestone, which is made up entirely of shells, which are of organic origin.

Take a bed of phosphate, which is made up of phosphatic material derived from animals, [735] and it is mineral. You have a great series of substances in which organic matter has played an important part and in a great many cases forms a whole bed. You can have a limestone composed entirely of organic material, and yet when you burn that and get commercial lime, that is a change from its original organic condition, and the commercial lime is a mineral of definite chemical composition.

Q. No difference occurs to you in a process which takes the mineral and simply decomposes it through the aid of some organic influence, and a process whereby the organic organism is itself merely altered in form?

A. Are you referring to shells or diatoms?

Q. I am referring to the oil and iron and limestone.

A. No; I think they are all minerals and commonly so accepted.

Q. You make no distinction in the regions of bog iron and of petroleum so far as the determination of the respective mineral characters are concerned?

A. They are both mineral.

Q. Why was it that for a great many years and even now petroleum was called coal oil?

A. That was because it was supposed by some people to be derived from the coal in Pennsylvania. That is proved not to be the fact in any way. It is not connected with the coal, and the name is a misnomer in that respect.

Q. And at one time that was a very common supposition, was it not?

A. I don't know that it was. The earliest scientific reports on that never mentioned it as derived from coal in any way. If you refer to the scientific accounts, they refer to fish in the Devonian and refer it to the different organisms in the Devonian and Silurian rocks, but never connect it with [736] coal.

Q. In your direct testimony at page 1371 you state: "Under this definition coal is not a mineral, since it is clearly of organic origin. That Congress had no such restricted definition in mind when it used the word 'mineral' is shown by the fact that it found it necessary to expressly grant coal to the railroad." Was that statement to your mind when you made it a statement of scientific conclusion, or was it a legal argument to support the government's theory in this case?

Mr. Mills—Let me finish the statement first. "Because under this restricted definition coal is not a mineral since coal is an organic article."

A. I think that is purely a matter of scientific deduction. Because given a certain group of words, what does that group of words mean? That sort of deduction is not a matter of law.

Q. Then what Congress meant is purely a matter of scientific deduction?

A. I think it is a matter of simple common sense.

Q. The grant in this case to the Southern Pacific Railroad Company passed July 27th, 1866. On the

same day Congress ratified a treaty with some Indians, in which treaty it was provided that—

Mr. Mills—Please state what treaty you are referring to.

Q. By Mr. Lewers—In which treaty it was provided—

Mr. Mills—I ask counsel to refer to the treaty.

Mr. Lewers—I shall ask the question as I wish.

Mr. Mills—I think it is only fair to counsel on the other side to state when you refer to public acts to give the date and the title of the act.

Q. By Mr. Lewers—In which treaty it was provided that a person in occupation—actual occupation—of any land held by the Indians, non-mineral in character, would have a right to [737] purchase the land he occupied, and a portion of such land had underlying it a well defined and well known and extensive body of coal. In your opinion as a scientific man, would the person occupying that land be entitled to purchase it as non-mineral land?

Mr. Mills—I advise the witness that he need not answer the question until the counsel shows what he refers to.

A. No; land underlain by a good workable bed of coal is certainly coal land.

Q. By Mr. Lewers—And in your opinion Congress intended in that case where it ratified the treaty on the same day that it passed this act, to include the word “coal” as a mineral?

Mr. Mills—You need not answer that question till

counsel is fair enough to state what act he is referring to.

Q. By Mr. Lewers—Will you kindly answer the question, regardless of the interruption?

Mr. Mills—I advise the witness not to answer the question till you state what act you are referring to.

Mr. Lewers—I except to the instructions given by counsel for the government to the witness, as an obstruction of the cross-examination and as misconduct on his part.

Mr. Mills—I except to your method of examination, referring to public acts and being unfair enough not to state to opposing counsel what act you refer to.

Mr. Lewers—I don't think it is a matter of any consequence to the witness as a scientific expert what act I am referring to.

A. I would have to see the act and read the whole thing to be able to answer you intelligently. Have you the act where I can look at it?

Mr. Lewers—I have not.

Mr. Mills—Did you ever hear of the act?

Mr. Lewers—I have. [738]

A. But I should say that in an unqualified statement, not qualified by anything in the act in any way—

Q. That is the fact. “Allowed to purchase non-mineral land.” That is the statement.

A. Land underlain by good beds of coal is certainly mineral land.

Q. As a scientific matter you would say that that

would include at that time as mineral the coal that was under the land?

Mr. Mills—The witness has stated that he cannot give you any response to that question.

Mr. Lewers—I think he has already given the response. Now, Mr. Mills, if you are very anxious to know, I will give it to you. You will find in the case of Stroud vs. the Missouri Pacific Railroad Company, decided by the Circuit Court of the United States and reported in 4 Dillon, page 396, a decision of that court to the effect that the words “non-mineral” in that treaty did not include the coal in the land.

Mr. Mills—I am very grateful to counsel for giving me the citation.

Q. By Mr. Lewers—Then it would appear that Congress sometimes was not thoroughly scientific, or that the courts in interpreting the acts of Congress were not thoroughly scientific.

A. The conclusion is still the same, that non-mineral excludes coal as a scientific matter. There is no doubt whatever and no doubt can exist. The only matter in the question of classification, which I have brought up repeatedly, is the matter of the relative worth of the land, which may have been an important factor in that case. It is certainly mineral land. You said that there was known to be a thick bed of coal beneath the land.

Q. Now, Mr. Veatch, you have made frequent and repeated comparisons between oil deposits and coal deposits and have, in [739] answer to questions by Mr. Mills, found the source of your horizon zone the-

ory, or what I have so termed, in coal deposits. Can you mention any writer on oil geology who has ever made that comparison?

A. No. The only comparison on coal is in that Geological Survey report, and that was discussed very carefully by people who were very familiar for a great many years with coal, and there has been no bulletin published regarding the valuation of oil lands.

Q. The question I asked you was whether or not you know of any writer or any geologist in any publication who had applied this zone theory or horizon theory to oil?

A. I think not.

Q. Isn't it a fact, Mr. Veatch, that one great line of distinction between a lode deposit on valuable mineral and a coal deposit is that one occurs in sedimentary strata and the other in fissures, ordinarily through rocks of igneous origin?

A. In what sense do you use "lode"?

Q. Gold, silver, copper.

A. They certainly differ, in the case of copper. There are impregnations of copper in limestone.

Q. Let us take gold and silver.

A. In that respect they are the same. Where anything occurs in stratified deposits the general laws as to stratified deposits follow; and with a great many lode deposits that is not so.

Q. And they most commonly occur in fissure veins?

A. There are certainly deposits of that kind.

Q. And those are the most frequent?

A. I don't know as to that.

Q. And some element of uncertainty in the prediction as to the occurrence of gold and silver values arises from the fact that they do occur in fissures rather than in sedimentary [740] beds?

A. Yes.

Q. Then is there not some analogy between oil deposits and lode deposits, in that oil which may exist or may have originated in shale sedimentary deposits must get to the reservoirs where you find it and can extract it, through fissures and cracks very frequently?

A. I think there is no analogy there.

Q. It is a fact, is it not, that in the economic production of oil you do not produce the oil or extract the oil ordinarily from the shales in which it is formed?

A. You assume that all oils are formed in shales, and I am not at all sure that that is the fact. The fact is I believe otherwise.

Q. I will change the question, if you don't like that assumption. Is it not a fact that you do not ordinarily as an economic proposition extract the oil from the formations, whether shale or something else, in which they are originally formed?

A. You extract the oil from a porous bed. What the relation of that porous bed is to the source, varies differently in a great many different regions.

Q. And in many cases that oil may have traveled a long distance from its source?

A. Yes, just as with water.

Q. And in many cases it travels through fissures or cracks?

A. I don't know that that is true. I think that probably occurs in some instances.

Q. And if that oil is formed originally at the base of a series of diatomaceous shales which is overlain with a great thickness of either shale or some other sedimentary deposit before you reach the sand bed that will serve as a reservoir, [741] it is necessary, is it not, that that oil find some means of getting through those beds to reach the sand?

A. In the first place, I don't believe you could prove that it originated from the base of the diatomaceous series—

Q. Mr. Veatch, will you kindly answer my question as I have given it? I have assumed that it comes from there. Can you answer that question as a scientific matter?

A. I think it is possible to come up without any fissuring of any kind, as a scientific proposition. Even in the densest shales you have diffusion of oils where there is no break in the shale. It is a scientific possibility.

Q. And comes through at right angles?

A. Yes.

Q. For what distance?

A. It depends on the matter of time in which the oil has to pass through it. It must pass very slowly. But in geology you are dealing with very large time-

factors. It is a great many eons, probably, since this thing started.

Q. Can you mention any place in California where development of any field has shown that such a thing has taken place?

A. As I stated when you interrupted me, you cannot demonstrate beyond any doubt that this material comes from those diatomaceous shales. And, if you cannot demonstrate that, you cannot demonstrate what portion of the bed it comes from. In the region involved the evidence is that it comes in greater volume from the upper portion of the shale for the reason that the great deposits of oil are in the porous beds above it and not in the porous beds below it.

Q. That is the reason you draw that conclusion?

A. Yes; that is the fact in the ground.

Q. Water is a mineral, is it not?

A. Yes, in some classifications. [742]

Q. Would you term land that from geological examination you determined would produce water in artesian flow, mineral land?

A. No, for this reason: That water is necessary to plant growth. It is an integral part of the agricultural value of the land, and in that respect it differs entirely from oil.

Q. Then, assuming that a particular territory in question was more valuable for the extraction of water than for other purposes you would not call that mineral land?

A. I think there is a question there. If the wa-

ter is used on the surface there, I would not call it mineral land. A case can arise where it would be mineral land.

Q. Then there is some land which is more valuable for its mineral contents that you would not call mineral land?

A. I have explained the way in which water is differentiated from oil. I have explained also that in the case of the clay bed, if the clay is more valuable for growing a crop, there your crop is using the mineral. The surface of all lands is mineral, and the distinction must be drawn and is drawn in every fair-minded man's mind between the material which goes to make a crop and the minerals which are extracted and exploited as minerals. In one case man extracts it; in the other case the plant extracts it.

Q. Now, suppose that in the vicinity of a hot spring or a series of hot springs there existed a deposit of gold in the shape of a fissure vein, containing gold which assayed high enough so that if it occurred anywhere else it could be worked at a profit; and that if that gold were extracted at that place it would produce more profit than any other use to which that land could be put; but that owing to the proximity to the hot springs and to the great heat encountered in developing that property, it is impossible according to any means now known to work that ledge for gold; and suppose the land had some value [743] to produce some income for purposes, not mining, in their character. In your opinion would that be mineral land or not?

Mr. Mills—I wish to object to this question because counsel has gone into the question of lode deposits and value of lands from their mineral or agricultural character fully at a previous session, and also I think it is rather unfair in view of the statement made by counsel that all he wanted to ask the witness yesterday was upon the bulletin, and I think the examination now should be confined to the redirect—the subjects brought out by redirect—and not rehash all this immaterial matter.

A. How do you know it would be more valuable for gold if you cannot extract the gold? Your assumption is impossible.

Q. By Mr. Lewers—Is that the best answer you can give?

A. It is a perfectly fair answer. Your question assumes an impossibility and I am pointing out to you that it is. Assume something fair.

Q. If you will kindly pay attention to the question and forget for the moment that you are anything else except a disinterested expert—

Mr. Mills—I object to any innuendoes made by counsel in that statement,—constantly asking him to pay attention to questions. That is all he has been doing for three or four days.

Q. By Mr. Lewers—and assume as a demonstrated fact that there is exposed and developed to a depth to show a high degree of probability of its persistence downward, a ledge carrying gold and assaying five hundred dollars a ton, but that owing to its proximity to a hot spring or series of hot springs it

is impossible, according to the means now known, to go down any deeper on the depth, although all the surrounding conditions demonstrate that that ledge does go down and does contain a large body of ore, and the land has some value for purposes other than [744] mining, although slight. Would you say that that was more valuable for mining?

A. I should say that you could not determine that that ledge went down in the way that you have described and therein your ledge differs entirely with beds occurring in stratified deposits.

Q. You are unwilling to take the assumption of the proven facts?

A. It cannot be proven in the way you have stated.

Q. Let us assume that it does go down for a distance of five hundred feet as shown by borings.

A. If a man could develop it partially, I think he could develop it entirely.

Q. And we will assume further, as my question does, that according to any means now known it is not possible to work that lode to its proven depth, although it contains values as shown by borings down to that distance.

A. Values of five hundred dollars per ton?

Q. Yes. Is that mineral land?

Mr. Mills—I want to ask Mr. Lewers a question. Do you insist on continuing this examination, when you stated to me that you concluded yesterday, any farther?

Mr. Lewers—Your statement made now is, as you must know, totally unfair. I said that there was a

question concerning a bulletin and certain other matters.

Mr. Mills—Then I shall certainly announce to you here and now that I shall call the attention of the court to what I regard is a deliberate attempt on your part to obscure the issues in the case.

Mr. Lewers—You are welcome to do that. I shall certainly not be silent when the time comes.

Mr. Mills—If the court were here I should certainly take it before the court now and see if you are permitted to take up [745] all this time. I regard it as an abuse of your privilege.

A. Yes; because if there was proof of the thickness that you describe of ore, having a value of five hundred dollars to the ton, I would trust American ingenuity to get it.

Q. By Mr. Lewers—At some time?

A. Yes, and in the near future too. [746]

JOHN CASPAR BRANNER, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

My residence is Stanford University, California. My age is sixty-one years.

As to my experience and training as a geologist, I will say, I was educated as a geologist at Cornell University. Left there in 1874 to go on the geological survey of Brazil, South America, and I remained in that country doing geological work about eight years. Then I came back to the States, and after a couple of

extra trips to South America and doing other kinds of work—natural history work—I went onto the geological survey of Pennsylvania, and worked there for two years in the anthracite coal regions, as assistant on the Pennsylvania geological survey. I was then made Professor of Geology in the State University of Indiana and was engaged as professor there for two years, although I held the position for several years more; I was on leave of absence. I then went, in 1887, to the state of Arkansas, where I was state geologist, and held that position until about 1893, I think it was. In 1892, however, before the expiration of my term of office, I came to Stanford University as Professor of Geology and have been there ever since. I was a member of the United States Geological Survey for several years; I don't remember now how many years. I think that embraces the principal facts.

I have had experience in the oil fields of California. I have worked in the geology of California almost ever since I first came to this state, in February, 1892. All the geological work that I have done here has borne more or less directly on the oil geology. I have visited different parts of the oil fields and have occasionally been employed to report on oil properties.

I reported on some property in what is known as the [747] Temblor Range northwest of McKittrick, I think. I am acquainted with the oil fields of Coalinga, McKittrick and Maricopa. The main fields are along the eastern flank of the Coast Ranges, running

down from north of Coalinga and lapping back against the Coast Range clear down to the southeast end of the San Joaquin Valley.

I made my first trip into the McKittrick District in 1900 when I observed the physical condition of the eastern flank of the range on the McKittrick front. As to the stage of development and the physical evidences there, I noted that from McKittrick northward to Temblor, I simply noticed that there were a good many oil wells there at McKittrick, that there were some along the road I went in going up to Temblor, but that there was quite a stretch of country between those wells and Temblor in which there were no oil wells—there was very little development in there at that time.

I noticed evidences of natural waste of oil; there were oil seepages all the way from McKittrick, here and there, clear up to Temblor; that is, here and there; of course they did not go all the way.

I know the group of hills east of McKittrick called the Elk Hills. During my trip in 1900 I simply noticed those hills, but I did not pay any particular attention to them at the time and I did not go out into them.

I made an examination of the Elk Hills the first time I noticed their geological structure—I don't think I can tell you exactly the year, but it was possibly a couple of years ago, when I went around the south end of the McKittrick or the Elk Hills. The geological structure was perfectly clear at that time. Since then I went across the Elk Hills, and I went

from McKittrick up to the top of the mountains west of there, and then went across the hills themselves—that is a few months ago—in [748] order to see the structure.

On those recent trips I formed an opinion as to the geological structure and as to the character of the Elk Hills for oil. That opinion was based on my general knowledge of the behavior of petroleum in the rocks; on my observation of the general geologic structure of the entire area that I went over. The structure seemed to be perfectly simple—the general structure, of course, I mean was perfectly simple; and the conditions for the accumulation of petroleum were favorable along certain folds that were easily seen by any geologist.

My opinion was that the Elk Hills was the most promising area for petroleum in that region in the vicinity of McKittrick. I formed the opinion that it was oil-bearing. That opinion was confirmed to a considerable extent by the developments that had taken place there recently, but everything seemed to fit together; that is, the geologic structure, the development of the wells, the occurrence of the oil seepages, and everything, pointed to the Elk Hills as a promising field for the finding of petroleum.

I observed at that time that there was identity in the slope of the surface of the Elk Hills in the structure. As the erosion cuts down into the sedimentary beds, the more resisting character of some of the beds very frequently brings out the geologic structure by leaving the rock surfaces exposed so

that they look like shingles on a house, or something like that. That is, the shape of the topography, the slope of the hill, will frequently in those cases give the dip of the slope or rock beds. And I noticed especially in going around the south end of the Elk Hills, that the structure was very striking as seen from that position. That was a year or two ago. And then in the last trip I made through there a month or so ago, I noticed the same thing again in other parts of the hills. I would say that, apart [749] from any works of man recently in the hills, such as derricks or roads, from the observations I made in the last two trips, that the hills were substantially in the same condition that they must have been in 1900; decidedly so. No changes except the ordinary process of erosion, which is very slow.

Had I gone into the Elk Hills in 1900 I would have arrived at the same opinion as to the character of these lands that I did on the later trip; decidedly so. The lands were favorable for the accumulation of oil and I should say that they were oil in character.

I should say that if any competent geologist, observing the natural waste of oil about McKittrick and the stage of development in 1900 or a year or two subsequent, and visiting the Elk Hills and making some examination of the structural formation, failed to form an opinion that the Elk Hills were oil in character and that there was an oil-bearing zone underneath those hills, he did not understand his business.

As to the purpose for which a large company engaged in the oil business were employing a geologist I would say, of course, it would depend on the terms of the employment. If he had to do with the location of oil wells, or the determination as to whether or not lands that the company proposed to develop were oil lands or whether they were not, or whether lands that they proposed to sell were to be valued as oil lands, or whether lands that they proposed to buy were worth anything as oil lands, I should think that the company would naturally depend on the opinion of a geologist to determine that question. I don't know of any more legitimate use that a geologist could be put to.

After examining the map known in this case as "Government's Exhibit I", and taking into consideration the development shown in this map in 1904 and the geologic structure of the region, I would not, in 1904, have advised a company employing me [750] to sell lands in this suit for their agricultural value, and I would have advised that company to acquire the lands at a price in excess of their value for agricultural purposes.

During my work as head of the Geological Department in Stanford University, I have frequently been applied to to recommend students of mine who have had a course in geology and have recommended them to do geological work; and quite a number of my students are engaged now in that kind of work in the petroleum fields of California. Ralph Arnold is one of my students. He reported on the geology of the

petroleum fields of California for the United States Geological Survey, and has written several reports on the different fields. Harry Johnson was another of my students. He worked with Mr. Arnold and also published separate reports. Robert Anderson, who now has charge, I think, of the petroleum work in the state of California for the United States Geological Survey, was one of my students. Then the geologists for some of the petroleum companies have been my students. Mr. W. Orcutt, I think, is connected with the Union Oil Company. He was a student of mine, although he did not graduate in geology. Another man is Rolly Hamilton. He was the geologist for the Associated Oil Company for some years. He is now connected with some other company, I have forgotten which one. W. Williams, I think, is now the geologist of the Associated Oil Company. Mr. E. B. Kimball is geologist and engineer for another company and there are several others—Robert Moreland was geologist for the Standard Oil Company for some time; now doing private work. I am reasonably sure that the Standard Oil Company employed him on my recommendation, although it did not apply to me directly.

I think practical men invest money in oil territory in advance of drilling on the advice of geologists, and I regard that practice as fully justified by the results.

On the trip I took into the Elk Hills this year, I saw [751] oil seepages in one locality—perhaps I might say three or four localities close together—at one place near the axis of the fold of the hills. Per-

haps, to do justice to the case, however, I will state that I did not attach and do not attach any particular importance to that seepage. I should have considered the place oil-bearing land just as promptly without it as I did with it. It would simply be confirmatory of my opinion based solely upon the geologic structure.

CROSS EXAMINATION

OF

JOHN CASPAR BRANNER.

In passing upon the character of the Elk Hills, I did not determine in any way the quantity of oil and made no attempt to do so. I could not have done so from the examination I made. That could only be determined by putting down wells. One well might determine the matter and it might not. Development is required to determine whether or not that is a valuable oil deposit.

A geologist does not determine the economic value of the land for oil. All he undertakes to do is to say whether or not the land has prospective value. I mean by prospective value, that the company proposing to develop that region should take it up—buy it, if necessary—and put down a well on it, should prospect it. I can best illustrate my idea of it by saying that I have considered it a reasonable investment, or, if you please to call it so, venture. I should have advised anybody who might have employed me to report on those propositions, to buy the lands with a view to developing them as petroleum lands, from

the surface indications and my knowledge of the surrounding conditions and of the oil formations in general. I could not, when I first examined the land, have given an assurance that oil in valuable quantities could have been found. I could do so now on the basis of wells that have been put down there and have found oil. On [752] the basis that in only two cases out of twenty-eight wells, some of them four thousand feet deep, indications of oil had been found, and in those two cases oil had been found in quantities not sufficient to make these particular wells profitable, I would not hesitate to advise operators to go ahead with prospecting. In the first place it depends on how those wells were located. If the wells were put down without reference to the geologic structure, they might go to an enormous depth without getting oil, and yet, they may move off to one side and put down a well, within a thousand or two thousand feet, and get entirely different results. And still, I may add, the general structure of the Elk Hills is so favorable to the accumulation of oil in that region that if they had gone to five thousand feet and not found the oil, I should still advise a company to not give up hope of finding it.

The greater part of my field work since I came to California has had some relation to oil geology. The oil in the California fields originally developed from a series of beds that were known in geology as the Monterey shales—a series of rocks made up of the skeletons of diatoms that have accumulated in great quantities, especially about the Southern end of the

San Joaquin Valley. These rocks were given the name "Monterey Shales" because rocks of the same age and general character occur at Monterey in this state. It is a local name.

The Monterey shales belong to the Tertiary period and occur in many places in California on the east side of the Sierras. All of the Monterey shale is not of the same character. Sometimes those diatoms have had mixed with them a good deal of clay and fine sand. In other cases there have been volcanoes in existence at the time those shales were being deposited and those volcanoes have thrown out great quantities of ashes that have floated and settled in the water so that as the diatoms have gone to the bottom, these diatoms have mixed up with the deposits so that they are not pure [753] diatoms but are contained with these volcanic ashes mixed in with them. In other words, you have some pure beds of diatoms, that is, with nothing but diatom skeletons; in other cases you have diatoms with ashes; in other cases the diatoms are mixed with fine sands; and in other cases they are mixed with volcanic ashes.

I do not see any reason why shales deposited in deeper salt water and those deposited in fresh water should not both produce oil, as a matter of fact. I do not see that the possible depth at which the shales were deposited ought to influence it in any way. I don't see what that would have to do with it. As a matter of fact as you can see from what I have said about the origin of these deposits, they float near the surface of the water, and, as those plants go to pieces,

die, they will sink wherever they are—that is, they will sink in shallow water, you see, and in deep water—and I do not see why the same rule should not hold to fresh water deposits, except as fresh water deposits are more limited in quantity. In the case of marine deposits, you see, we have these currents sweeping down from the north and they have simply been pouring in here for millions of years from the same source and accumulating where the coastal conditions were favorable, whereas, in the case of fresh water deposits your diatoms go right in the water, the lakes and ponds—they are very common in pools, marshes and ponds—but you see that the chance there for a thick accumulation is comparatively small.

It has been my experience from my observations that oil in California has been derived from other formations than Monterey shales. I should say that the term “Monterey shales”—To say that oil was all derived from Monterey shales would be a mistake. I instinctively, in looking over lands that I have been called upon to examine for petroleum, have looked about for these diatomaceous shales. Now, those diatoms, you can see from the nature of the case, have been accumulating for an enormous period of time, and [754] they were not necessarily confined to the time in which those Monterey shales were being heaped up; so that we have older beds that have diatoms in them, and we have the later beds, and wherever I have found marine diatoms accumulated in considerable quantities, I have considered that

there was a legitimate place to look for petroleum, whether they happened to be in that particular age or earlier or later.

In some instances it is difficult to determine whether oil has been produced from a particular shale or from underlying or overlying that shale.

As to whether all the portions of a bed of Monterey shale would be equally producing I will say that these diatomaceous shales, being the source of oil, the oil does not as a rule stay in those beds. It passes out into an absorbing bed—a porous bed—where the oils accumulate. Now, the accumulation, therefore, depends on the presence of diatom beds to furnish the source, but the accumulations themselves, as you see, depend on the nature of the beds into which those oils pass; and you may have no beds there to receive that oil. The conditions may be unfavorable and the beds overlying them into which that oil can be expected to pass may vary in texture so that the oil accumulates more in one place than in another, so that the oil beds may be pockety even under conditions where you have diatomaceous beds of great thickness and evenness.

It would be difficult to say whether a particular part of these diatomaceous shales had produced oil any more than any other part. I should not think it would be possible to do that. That phase of the question never occurred to me. I generally assumed that the oil in those beds has passed off somewhere, and if the conditions for accumulation are favorable, that the oil would be found there, and if the conditions

were not favorable, the oil would have disappeared. [755]

I think geologists know pretty well what the conditions were under which these diatomaceous beds were laid down. But we are not surprised at all to find, in tracing out these same beds over a large area, that in some places they are gone entirely—that there are not any—that they have been removed by erosion or that they were not deposited there at all; or, if they were deposited, they were deposited rather thinly and erosions removed the thin edges of the beds. I don't think there is much question about the geographic and physical conditions under which they were deposited.

As to whether there are any Monterey shales in California that do not yield oil, I will say, I don't know with absolute certainty whether that is true or not. I have found, for instance, in the coast ranges in,—in the Santa Cruz Range—between the Santa Clara Valley and the ocean there, that there are here and there in beds Monterey shale; and prospecting has been done for petroleum, but they frequently find not oil in paying quantities, but a little bit of it in those places. And they are usually places where the deposits are rather thin and, I should say, at first blush, that they are not places that are worth while prospecting.

By thin deposits I mean twenty-five or thirty feet thick, or something like that. Of course, you have to bear in mind, in connection with that statement, that those same beds down towards the southern end of

the San Joaquin Valley have a thickness of over five thousand feet, and a great thickness like that immediately would make a competent geologist prick up his ears, because he would say, "Here is a chance for an enormous accumulation of oil."

The thinness of the deposits may indicate that they were originally so, or that they are the result of erosions and changes. If they occur so that you have some other kind of rock [756] underneath the shales, and then a thin layer of ten or fifteen or twenty or thirty feet or so of those other shales, and then another kind of rock such as sandstone or conglomerate or almost anything else, overlying that conformably—fitting down over it—without any evidence of erosion, you would say they never were deposited there. But if you find these shales exposed at the surface, of an irregular surface, evidently cut in two by streams,—in a case of that kind you would say, "We don't know how thick those beds are, unless we can get the evidence around in the neighborhood", because in that case the thinness is due to erosion.

When I first went into the McKittrick District in 1900, I visited the Temblor Range. I had two assistants working with me to do topographical work, and we were mapping an area of several square miles, in detail, and my impression is I must have been there something like ten days or two weeks working on that geology.

I made quite a careful examination during that period for the purpose of reporting on oil possibilities and reached the conclusion that there was oil,

probably in paying quantities, on the property, if the wells were put down at certain points; and I located the wells and they found the oil, but I cannot say whether in paying quantities or not. From my surface examinations I could not determine with any degree of exactness whether there was oil there in paying quantities. That had to wait the test of the drill.

After 1900 I was not in McKittrick until two or three months ago. I was up around Maricopa and Taft and that part of the country, and the Buena Vista Hills, a couple of years ago. My attention was not called to the Elk Hills at that time further than I would naturally notice in driving past there. I noticed the formation and drew my conclusions as to an anticlinal structure there. I had no occasion on that trip to make any particular [757] examination of the Elk Hills. I examined the Buena Vista Hills and reported to a firm of lawyers in Los Angeles, whose names I do not remember. I don't remember the sections examined on that occasion. There were several of them. I examined some lands through Sections 1, 2 and 3, I think, in 32-24. I was not there more than three days, I should say. I prepared a written report as to the result of that examination, which I sent to the lawyers mentioned above.

At that time there was drilling going on in the Buena Vista Hills, there were a good many derricks around there and I think oil had been struck in the Buena Vista Hills. My impression is that oil had been obtained in one well.

Last February I spent part of one day near the center of the Elk Hills. I was there two days in that vicinity. We drove out from McKittrick up through 30-23.

On that occasion I went to what has been referred to as an oil seep. Near the middle of the northwest quarter of Section 32-30-24, about on an anticline, are oil seeps. I did not attach much importance to that seep. I felt so confident of the importance of all that property for petroleum, and my experience with oil has been that if you have an oil yielding horizon or bed, covered over with a thick impervious stratum, that it may happen that the evidences of oil itself will never come to the surface, and that you could, in a region that was otherwise favorable, advise companies to put their wells down absolutely regardless of whether there is any seepage there or not, and if I found the seepage there, I should simply say to myself that it is more or less confirmatory of the other things.

The seepage was important as an indication of what was underneath. I did not, on that occasion, have any test made of that seepage.

It is a little difficult to say in how many places [758] seepages were found because sometimes you have a slope of the hills where the soil or sand has crept down over and concealed the outcrop, and you may find a dip here and then thirty or forty feet away find another exposure, and fifty feet away another one, and a hundred feet away another one, and they may all be manifestations of the same

thing; and I regarded those seepages there, so far as any indication of the presence of petroleum was concerned, as all one thing. I did not observe any seepages of that kind elsewhere on that trip in the Elk Hills.

Even if I had not seen that seepage my opinion would have been, owing to the formation of the Elk Hills, that they were suitable for the accumulation of oil, but that would not necessarily mean that they had accumulated oil. That could be determined only by exploration. I suppose there are promising formations giving indications of adequate reservoir space for the accumulation of oil, that do not produce oil in paying quantities. I should say such things do occur.

I can illustrate such occurrences perhaps best by referring to a place in Pennsylvania where the anticlinal folds sometimes run for a long distance. Those folds in the rocks have this peculiarity; that they will wrinkle or arch, when the rock will rise until it comes to a certain height, and then plunge down and go down into a sort of a saddle, and come up again, and that sort of a thing may be traced across the country sometimes for maybe fifty miles or more. Now, in a region where the oil is distilled or let into a porous rock underneath a structure of that kind, you can see that the tendency is for the oil to be trapped underneath these big domes. Suppose you had an oil company and the geologist looked at that whole anticline. The geologist would naturally say "Look for your petroleum along where these domes are." But, at

the same time, that whole arch there is practically an inverted arch or trough under which the petroleum accumulates. Now, there[759] is an end to the petroleum somewhere. It is not going to accumulate everywhere in that entire arch. So, you can bore holes right along the crest of the anticline and in some places get great quantities of petroleum and in other places you won't get any at all, because the water crowds the petroleum up underneath there.

There might have been an anticline broken across and so dislocated that the petroleum might have floated right out and it might have come out to the surface, especially on the side that is uplifted, so that it would be floated out to the surface and lost. There are sometimes processes going on in the oil beds where the oil is deposited, which would make it unprofitable to get out the oil. The case that I have in mind as illustrating it, is in the vicinity of the city of Santa Cruz, in this state. There is a great bed there of asphaltum, that is worked for the asphaltum, and it seems that the bed is simply a deposit of asphaltum that has oxidized so that it is no longer in the shape of petroleum—you can't pump it out, or it won't flow out; it is too thick.—

If the oil-yielding rocks did not underly or were not close to the anticlines, I should not expect oil under them. I should naturally expect that the amount of shale from which the oil is derived will have a bearing upon its productivity. The impervious strata between the oil-producing shale and the sand beds or reservoir would also have an effect upon the

productivity. It would have a tendency to shift the localization of it. That very likely accounts for the discovery of oil in large quantities in one place and the failure to obtain it in other places within a short distance. It is necessary for the favorable accumulation and profitable development of oil that the sand beds be of some considerable thickness and extent. It would be hard to say just how thick those beds ought to be; and these porous beds in a gently folded region covering and gathering its oil over a large area might yield just as much oil as a thicker porous bed gathering oil [760] over a small area.

I do not think there is any way to determine from an examination of the surface how large an area yields oil at any particular point. It sometimes happens that the sand beds become hardened so that they cease to be media through which oil can pass, and it occasionally or even frequently happens that the sand beds pinch out between hard layers of strata. That is one of the reasons that one well is not a complete test of the character of any given territory, and as to other reasons therefor, I will say it depends on the localization of the oil. For instance, if you take the crest of an anticline—suppose we know where it is, and the well is put—and the rocks, we will say, dip towards the north at a pretty steep angle, and the well is put down, a thousand or two thousand feet to the north of that anticline, to a given depth and it gets no oil, that should not be considered as settling the question as to whether petroleum occurred in that anticline or not, because the well, at the same depth,

might reach a petroleum-bearing bed if they went to the right place. You see, the beds dipping toward the north, your petroleum-bearing horizon comes near the surface at the axis of the anticline, and then, as you go away toward the north, on a flat surface, we will suppose, and put down your well, you see the depth of your well will have to be enormously greater there than it would have to be at the anticline.

I do not think that the presence or absence of water in the strata carrying oil could be regarded as decisively having a bearing upon where you would find the oil—certainly not in the light of what I understand to be the well-known fact in regard to the occurrence of petroleum in the San Joaquin Valley to-day. It used to be considered that if a well were put down and struck water there was no use looking for petroleum there; but I understand that the water has been shut out, in a number of instances, and the well has gone on deeper and found the petroleum below the water horizon. [761]

It is my general impression that the view I have first mentioned generally prevailed in the California oil fields until a few years ago.

Other things permitting, water would force the oil into the anticline to where there is a large accumulation of gas developed at the crest of the anticline. The oil would stay on top of the water and the presence of water would have considerable bearing upon whether you would find oil in the anticline or not. These conditions can not be determined from a surface examination.

It is not possible from a surface examination such as I made of the Elk Hills, to determine the depth of the oil sands. There are only two ways in which that can be determined. One would be to work out the geology with great care and detail over the region—not only in the Elk Hills themselves, but in the surrounding country—to find in what horizon the oil accumulates, and then by fitting one's evidence together and studying it one might come to the conclusion in regard to the depth at which the well would reach the oil-bearing bed. The only other way would simply be to put a well down and test it.

I have not made sufficient examination with that question in mind, to be able to tell whether you could ascertain the depth without a well, in the Elk Hills. I made no attempt to do so. The purpose of my examination was to ascertain, generally, whether that could be considered as possible oil territory, and I made no attempt to determine whether it was paying oil territory.

The general geology of the Elk Hills would lead me to infer that Monterey shale was under there and in great thickness.

As to whether or not the formation which has been termed the "McKittrick" formation conforms exactly or not to the underlying formation, I do not know. In order to answer that question very precisely it would be necessary for me to study the geology more in detail than I have studied it there. [762]

It is quite possible that the underlying formations in the Elk Hills had been very extensively folded or

faulted or eroded before the deposit of the McKittrick formation. That could be determined only by extensive exploration. It would require a section through there, obtained by boring or in some other way, in order to determine that. Of course, one could work out the geology of the diatomaceous beds around there and find out whether the axes or folds run under this McKittrick formation, and they might be able to make it out fairly well. Whether that is true or not, I would not undertake to say at present.

I think it very likely that the reason why petroleum was called "coal oil" is found in the fact that it was originally supposed that petroleum was derived from coal.

Ralph Arnold did more work for the United States Geological Survey than any other man in connection with the oil geology in California. He has the reputation, deservedly, of being an able geologist, and to my knowledge, has devoted a great deal of time and study to the oil geology of California. As to the other geologists who were former students of mine, I expect that Robert Anderson has, next to Mr. Arnold, devoted a greater amount of time to the scientific study of the oil formations in California. He was Mr. Arnold's assistant for some years, and after Mr. Arnold resigned from the United States Survey, Mr. Anderson was put in charge of the petroleum work in California by the Survey.

It is not ordinarily possible for a geologist, or practical oil man, to determine from the existence of an oil bed at a particular point, that the bed continues

for any particular or definite distance in all directions or any direction, partly because the oil comes to an end where it rests on the water; partly because the porous beds are not infrequently more or less lenticular in form; that is, they may pinch out and come to an end of themselves in that way, by thinning down, or they may be interrupted by [763] breaks, what we call faults or displacements of beds, so that the beds may be chopped square off.

REDIRECT EXAMINATION OF JOHN CASPAR BRANNER.

By saying that the Monterey shales in the lower part of San Joaquin Valley are quite thick, I mean that those shales were laid down in the bottom of the sea in approximately horizontal beds, and those beds can be seen where the rocks are openly exposed in cuts, as they are in some places around here, where you can see them like one board lying on top of another, and the thickness through, measured right straight through those beds as though you were measuring through the thickness of a book, amounts, in that region, to something like five thousand feet.

The Elk Hills are situated right about in front of the thick portions of these Monterey shales. The thickest parts, beginning up here some way north of McKittrick, come—oh, perhaps twenty miles or more, or so, northwest of McKittrick, and from there down to the vicinity of Maricopa, is the very area in which those shales have those great thicknesses, and these Buena Vista Hills and the Elk Hills lie right off towards the east, northeast, of those hills.

I would not expect the shales under the Elk Hills to be so faulted as to influence the disadvantageous accumulation of oil there. In fact, I anticipate that if I could take off the oil-bearing beds, the whole series—strip them, right away, down until we came to the Monterey shales—that I might find those shales more or less folded and ending up right against the old ground surface on which these later and oil-bearing beds have been laid down; but, so far as structural relations are concerned, I should consider that a sort of thing rather favorable than unfavorable to the accumulation of oil in the overlying beds.

From my examination and knowledge of the neighboring [764] regions, I have no reason whatever to believe that the oil-bearing sands in the Elk Hills are thin, hard or pinched out. That is a general conclusion. It is a generally recognized fact in regard to any sediment laid down in the water, especially if they are coarse.

I am familiar with the methods of quartz and gold mining and with petroleum mining, and should consider that, so far as the metal mine was concerned, the finding of traces of gold or silver on the surface of a ledge or lode did not amount to anything more than the merest suggestion, whereas in the case of the Elk Hills, I consider that the evidence is worth going ahead without any other evidences than the geology itself and disregarding any drilling or actual development in the hills themselves by man, and that evidence existed as early as 1900.

In coal mining one can get a very close idea of the tonnage to be taken out under a given tract of land; that is, we can calculate the product. It is the rule, in fact, in the anthracite regions in Pennsylvania, that the company will have in its reports by its geologist "We have so many acres of land. This land yields so many tons an acre", and they count on that just exactly as if it were money in the bank. Now, in petroleum mining, of course you can't do that exact thing; there is an element of uncertainty about it that you don't find in coal mining.

There is no such uncertainty in petroleum mining as there is in quartz mining. I should say that next to coal mining, the mining of petroleum, based solely upon geologic evidences, was the surest kind of mining that I know anything about.

I had not heard of any experience which indicated that the theory that the presence of water meant no oil existed in 1904. If I had heard it, I have forgotten it.

I should expect to find certain parts of the folds in Elk Hills more productive than others; but it would be a pretty [765] nice question to say just where the petroleum is going to come to an end. I don't think anybody could tell.

It seems to me that the best chances for oil in the whole country in that region were in the Elk Hills and the Buena Vista Hills. In forming that opinion I took into consideration the possibilities of the non-occurrence of oil resulting from the conditions of the sand and the pinching and hardness of the stratum,

and other interruptions; I think that any reasonable geologist knows that there is a certain amount of risk in any kind of petroleum mining. He counts on that.

I should say, decidedly, that the conditions in the Elk Hills are such as to warrant the ordinarily prudent man in the investment and expenditure of money with a reasonable expectation of developing a paying oil property. But I should like to explain this, that if we went back to the conditions as they existed there before any wells were put down in either of those hills and if I had been the consulting geologist for some company or party who anticipated putting down wells there, I should have put it to him in this way: "In my opinion the geology, altogether, of the mountains to the west, and the floor of the valley, and everything taken together, strongly suggest that these hills are the best place in which to put down oil wells. There ought to be, so far as we can see, enormous quantities of petroleum under those two group of hills. Now, there is nothing absolutely certain about putting down an oil well in a new region; there is a certain amount of risk about it and you can't get away from that risk." And I should have said to those men: "If you have got money to risk and you can afford to lose it, put it in there; if you can't afford to take any risks, you had better let somebody else do it."

I mean that anyone who had money to risk and who might afford to lose it might get larger returns for his money than he would from an ordinary investment. Perhaps I ought to say that [766] one of the

reasons for that risk lies in the fact that there is no way, short of putting a well down there, to determine the thickness of the strata that overlie the oil-bearing bed. As everyone knows, who knows anything about petroleum wells, you may have an enormous volume of petroleum so deep that you can't get it, and I should have said that may be the possibility there. Of course, the developments there have shown that the oil is there and the question now, of course, is entirely different from what it would have been before those wells were put down.

It is my belief that there is an enormous petroleum deposit in those hills but I have made no attempt to work out the details as to the depth and am not prepared to state whether it would be twenty-five hundred or five thousand feet.

RE-CROSS EXAMINATION OF JOHN CASPAR BRANNER.

I did not mean to say that I could tell whether the oil-bearing beds under the Elks Hills were folded, faulted even, or what condition they were in; that I could not determine. It might possibly be folded and overturned.

I don't know when I first heard of the change of view in reference to water being found in oil wells; it was comparatively recent; certainly within three or four years, but I would not say exactly. Prior to that time water in a well had been regarded as an almost fatal condition.

RE-DIRECT EXAMINATION
OF JOHN CASPAR BRANNER.

I should have said that I did not know whether water, under the conditions mentioned above, would be fatal or not, because my observation in regard to water led me to believe that it could be separated from oil horizons and that it was separated from them; but the well-drillers all protested so, that, as far as my experience went, when they got to water they gave it up as no use. [767]

In reaching my conclusion from observations in 1912, from the geological evidences alone, that the Elk Hills was an enormous oil-bearing zone, I did not take the possible existence of water there, into consideration. I did not consider that it bore upon the question one way or the other. As a geologist, I would say that I would be disposed to pass the question of the interference of water along to the mechanical engineers who had charge of the boring, and should tell them to take care of the water and shut it off and go along with their boring and pay no attention to that.

RE-CROSS EXAMINATION
OF JOHN CASPAR BRANNER.

I do not mean to be understood as saying that I actually determined that that territory did contain an immense quantity of oil. I meant to say that if I had gone over that ground in 1900 with a view to saying whether or not those were probably petroleum lands, I should have, under those circumstances,

pronounced them oil lands and recommended their exploitation to anyone who was able to take the risk. I realized that the risk might result in a total loss of the investment.

REDIRECT EXAMINATION OF JOHN CASPAR BRANNER.

After I went there two years ago and after I went there two or three months ago, after seeing the general geology of those two groups of hills, I concluded that they were both favorable for large accumulations of oil. [768]

GEORGE A. STONE, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION.

I am 63 years old and first went into the employment of the Southern Pacific Company in 1865, as flagman on the Central Pacific survey.

From 1897 to the latter part of 1907 I was employed in the land department of the Southern Pacific Railroad Company and am now a pensioner.

While employed in the land department I knew Mr. Eberlein, who was acting land agent. I was his clerical assistant and as such had something to do with the preparation of lists of lands which were claimed by the Southern Pacific Railroad Company under its grant. I supervised the preparation under Mr. Eberlein's direction.

I am acquainted with selection list No. 89 of the main line grant and had to do with its preparation.

It was prepared in 1903, probably in September or October.

I am acquainted with the Township just east of McKittrick but don't remember its number just now. It is probably 30-23. The odd numbered sections from 15 down to 35, excepting section 31, are embraced in that list.

That list was prepared under Mr. Eberlein's direction. The lands mentioned were placed in that list at the suggestion of Mr. E. T. Dumble, I think. Mr. Dumble was consulting geologist of the Southern Pacific Company at that time.

I do not know that Mr. Dumble had examined the lands. I never knew what his duties were. I made no examination of the lands in suit, myself, for the purposes of selecting them. Such knowledge as I had of the lands was general in character from my general knowledge of the country. I had been, frequently, in the country for two years preceding. [769]

I was discharged from the services of the company and was not reinstated. Mr. Eberlein directed me to go to the field to examine certain lands and I felt that my health was not equal to the task and declined the work, and, on account of that, as we could not agree, he said: "Well, your services will terminate, then, on the 31st of December, 1907", and my services ceased then.

I naturally felt some bitterness about being let out and probably called the matter to the attention of some officer of the company; I do not recollect that.

I regarded the selection of these lands as irregular. Mr. Dumble, as the geologist, I thought pressed the selection for reasons best known to himself. I supposed, as geologist, he thought they were oil lands. He pressed the selection of this land probably within thirty days prior to the list in 1903, not earlier than September or later than November.

The list filed in the Visalia Land Office contained the lands in suit. I don't think it contained other lands. As I remember, the list was incorrect in some way when filed, and later some different bases had to be substituted for a portion of the lands selected. I am not sure of that. It is my recollection that there was a rearranged list. I think Mr. William Wicks, a clerk in the office, wrote the description to the land in the list No. 89 referred to, which has just been handed to me.

After I was subpoenaed as a witness in this case I went, of my own accord, and informed Mr. Singer of that fact, and this morning, of my own accord, I told Mr. Lewers, attorney for the company, that the list was made up at the suggestion of Professor Dumble.

I am a pensioner of the Southern Pacific Company. At the time the selection was made I was on the pay roll of the Southern Pacific Railroad Company. Mr. Dumble's name did not appear on [770] the land department roll of the Southern Pacific Railroad Company.

I had authority to sign Mr. Eberlein's name to correspondence but not to selection lists. I had charge

of the office, generally, in his absence for the purpose of correspondence and some of the routine business.

CROSS EXAMINATION OF GEORGE A. STONE.

I wrote to Mr. Kruttschnitt about my discharge as I thought I had been unjustly treated, and I had every reason to. I still feel the same way about it.

I do not think I said anything to him about what I considered to be an irregularity and I don't remember complaining about that to any of the officers of the company. I was friendly with them after my discharge.

REDIRECT EXAMINATION OF GEORGE A. STONE.

I have no recollection of stating in my letter to Mr. Kruttschnitt that I would lay before the Department of Justice and give to the press what I considered an irregularity in the selection, unless I was reinstated. I probably threatened at one time to do so.

I have a faint recollection of the Confidence Oil Lease but don't remember the leases by name now. I remember the Zier Oil Company, which, I think, had a lease with the Southern Pacific Railroad Company and there are a number of other instances where the railroad company had leased certain of its oil lands to individuals.

I think there was a man named Josiah Owen in Mr. Dumble's department. I remember, sometime the latter part of the time I was in office, seeing him.

I think Mr. Dumble had charge of the leases and reports were sent to the Land Department as to the amount of oil removed [771] at the time when different wells were in operation under these leases, and various other matters connected with the leases through his office. They were written reports, I think.

RE-CROSS EXAMINATION OF GEORGE A. STONE.

Until Mr. Mills called my attention to this letter to Mr. Kruttschnitt, or seemed to think I had written one, I had forgotten about any letter to him. I am not sure that I made a threat to Mr. Kruttschnitt or other officers of the Company, that I would complain to the Government about this matter. I was mad and likely, in my anger, went further than I would have if I had not been angry. I was anxious to make my case appear as strong as I could. [772]

On Wednesday, May 15, 1912, at 2 o'clock p.m., the further taking of testimony herein was resumed pursuant to the adjournment: Willis N. Mills, Special Assistant Attorney-General and A. I. McCormick, United States Attorney, appearing on behalf of the plaintiff, and Charles R. Lewers, Esq., appearing on behalf of the defendants.

Mr. Mills—Please swear Mr. Eberlein.

Whereupon, CHARLES W. EBERLEIN was called on behalf of the plaintiff and duly cautioned and solemnly sworn to testify the truth, the whole truth and nothing but the truth.

Mr. Mills: Mr. Eberlein, will you produce the

data, memoranda, which you were commanded to produce in response to the subpoena?

Mr. Eberlein: There it is. (Pointing.)

By Mr. Mills:

Q. Mr. Eberlein, for the purposes of this record I will ask you your full name, and your present place of abode?

A. Charles Wood Eberlein. My present post-office address is Callahan, Siskiyou county, California.

Q. Were you at any time in the employment of the defendant Southern Pacific Railroad Company.

A. Railroad Company?

Q. Yes sir.

A. Yes sir.

Q. During what years, Mr. Eberlein?

A. From 1903 until 1908.

Mr. Mills: At this time, Mr. Lewers and Mr. Shoup, I want to ask you, with reference to certain exhibits I want to offer in this case which have evidently passed through the fire and are in [773] a carbonized state and are actually falling to pieces because of the frailty of the exhibits, whether you will object to stipulating, after examination by you, that we can withdraw them and substitute certified or compared copies?

Mr. Lewers: Well, when we see them we can tell.

Mr. Mills: In order to preserve them. You will have no objection to that, will you, after you have examined them?

Mr. Lewers: I can't tell until I see what they are. We may want them in the record.

Q. By Mr. Mills: I show you, Mr. Eberlein, what purports to be a certified copy of a resolution of the board of directors of the Southern Pacific Railroad Company, dated September 2, 1903, signed by Mr. Willcutt as the secretary of that company. Will you state what it is.

A. Well, that is apparently the resolution of the board of directors of that date appointing me as acting land agent of the company. That is my handwriting on the back. I have not seen this document for years. I had forgotten all about it.

Mr. Mills: We offer this in evidence.

Mr. Lewers: We object to the introduction of this document on the ground that no sufficient foundation has been laid, in that the origin and custody of this document has not been accounted for, and for all that appears from the evidence already introduced this may not be a genuine document.

Mr. Mills: In response to that we will say that before we finish the testimony in chief we will show in whose custody it has been.

The certified copy of the resolution last referred to and offered in evidence is marked "Plaintiff's Exhibit DD—L. L."

Q. Are you acquainted with the handwriting of Mr. J. H. Willcutt, secretary of the Southern Pacific Railroad Company?

A. I am acquainted with his signature. [774]

Q. Yes. I mean his signature.

A. Yes.

Q. Will you state whether that is his signature on Government's Exhibit DD?

A. Yes, sir; I believe it is.

Q. Will you refer to the seal on the document and state whether or not that is the seal of the corporation whose board of directors purports to have issued that resolution?

A. That is the Southern Pacific Railroad Company's seal.

Mr. Mills: Do you deny, gentlemen, Mr. Lewers and Mr. Shoup, that that is the signature of Mr. Willcutt or that that is the seal of the Southern Pacific Railroad Company?

Mr. Lewers: I would prefer you would prove your case in your own way.

Q. By Mr. Mills: I show you this paper, Mr. Eberlein, and ask you whether you have ever had that copy prepared—it seems to have been dated in April, 1904,—from any other paper?

A. This must be a copy of the resolution. That is my handwriting on the back.

Q. I refer to this second page, which is not on that paper. Was that prepared from any paper saved from the conflagration of 1906, do you know?

A. I couldn't say. I have not seen that. I have not seen that paper.

Q. Now, Mr. Eberlein, will you state the circumstances connected with your appointment as acting land agent of the Southern Pacific Railroad Company, in full?

A. More than just the actual fact of appointment?

Q. Yes. That is, who directed the appointment, if anyone, and how it came about?

A. The appointment, as I remember, was made at the request of Mr. Kruttschnitt. [775]

Q. Will you give his full name, please?

A. Julius, I think it is.

Q. Yes. And what office did he hold at that time?

A. He was vice-president and general manager of the Southern Pacific Company.

Q. Had you had any talk with Mr. E. H. Harriman, prior to that time, about being appointed to the position?

Mr. Lewers: To which we object, on the ground that it is calling for purely hearsay testimony, and that a corporation cannot be bound by the exparte and unofficial statements of any of its officers.

A. I had a talk with Mr. Harriman before I came west. I came west at his instance, but not to be acting land agent or to have any official connection with the roads.

Q. By Mr. Mills: Prior to your appointment as acting land agent had you been connected in any way with any other railroad excepting the—

A. The Union Pacific.

Q. Yes. And in what capacity had you gone into that company, Mr. Eberlein?

A. Well, as the representative of the vice-presi-

dent of the road in reorganizing the land affairs of the Union Pacific.

Q. Will you state the circumstances of how you came to be suggested to the board of directors of the Southern Pacific Railroad Company as acting land agent?

A. I came to San Francisco in June, I think, 1903, to take up the matter of the consolidation and reorganization of three land grants, and it was while engaged in that work that Mr. Kruttschnitt called for me and told me that it was very desirable to make some changes in the management of the Southern Pacific Railroad Company land department. He wished to retire Mr. Jerome Madden, who was then the land agent, and he wished me to agree to [776] take that place temporarily. To which I objected strenuously, as interfering with the other work that I was sent there to do and which I had on hand. I protested to the New York office against it.

Q. By "New York Office" what do you mean? What office?

A. To the office of the Harriman lines, the Southern Pacific Company, in New York. But Mr. Kruttschnitt asked me as a personal favor to accept that, and he thought in six months he could find somebody. And that is how I came to be appointed.

Q. You entered upon the discharge of your duties upon what date, as acting land agent?

A. I believe the 3rd of August, 1903. I believe it was August. I would not be sure. I have nothing to show.

Mr. Mills: In order to get a statement into the record of the duties of the acting land agent, I will read into the record, so far as I am able to, from this Exhibit DD, as follows:

**SOUTHERN PACIFIC RAILROAD COMPANY
RESOLUTION ADOPTED BY BOARD OF DI-
RECTORS—SEPTEMBER 2, 1903.**

.

RESOLVED AND ORDERED THAT C. W. EBERLEIN be and he hereby is appointed Acting Land Agent of this Company, with full power to supervise and attend to all matters pertaining to land he Stat is granted by the United States to this company, or its predecessor, the SOUTHERN PACIFIC RAILROAD COMPANY, including the lands granted by the United States Government to the TEXAS AND PACIFIC RAILWAY COMPANY, and assigned and transferred by said Texas and Pacific Railway Company to the Southern Pacific Railroad Company, predecessor of this company, and said C. W. Eberlein as such Acting Land Agent, is hereby given full power to manage, conduct and carry on the business of the Land Office of this company and subject to the approval of the President or any Vice-President of this Company, to sell, contract 11, demise and let all or any of its said [777] lands and to sign his name for this Company to all contracts, agreements, leases and other documents as shall be necessary and requisite for the full, complete, effectual and proper management or disposal of its lands.

And he is hereby fully authorized and empowered to represent this Company in the United States Land Offices or before the officers thereof in person or through persons employed by him for that purpose, and to represent this company in all matters pertaining to its lands at all times and places.

RESOLVED, further, that all acts heretofore done by the said C. W. Eberlein, as Acting Land Agent of _____ Company, within the purview of the foregoing resolution, be and the same hereby are approved, ratified and confirmed.

I, J. L. Willcutt, Secretary of the Southern Pacific Railroad Company, hereby certify the foregoing to be a full, true and correct copy of a resolution adopted at a regular meeting of the Board of said Company, held this day.

WITNESS my hand and the corporate seal of said Company, this second day of September, 1903.

J. L. Willcutt,
Secretary.

(Seal: SOUTHERN PACIFIC
RAILROAD COMPANY.)

(Endorsed:)

Resolution

Board of Directors Southern Pacific R. R. Co.
Sept. 2, 1903, Appointing and Defining duties of C.
W. Eberlein Acting Land Agent S. P. R. R. Co.

Q. Now, in the discharge of your duties as acting land agent, will you state generally, Mr. Eberlein, what functions you had as acting land agent?

A. Full charge and control of all the granted lands of the company.

Q. That included, did it not, the lands in the vicinity of [778] the lands in this suit which had then been patented in the McKittrick, Sunset and Coalinga fields?

A. Everything in the grant lands; such lands in those fields as were granted lands of the Southern Pacific Railroad Company.

Q. Do you know Mr. George A. Stone?

A. Yes.

Q. The witness who testified here this morning?

A. Yes sir.

Q. Who and what was Mr. George A. Stone during the time he was connected with the Southern Pacific Railroad Company while you were acting land agent?

A. He was my assistant almost the entire time I was acting land agent.

Q. And as assistant to you did he hold the title of assistant acting land agent?

A. Assistant to the acting land agent.

Q. What was the nature of his duties as such officer?

A. Well, he represented me in my absence, ran the office, ran the department.

Q. In doing that what powers did he have?

A. He had all the powers necessary to run that department during my absence, with the exception only of signing deeds or doing such other acts as were limited to the acting land agent by the board

of directors. He did not sign the selection lists; I signed those in person, because I believe that is required by the government. But he did everything else, in the way of signing vouchers, approving pay-rolls. He signed leases for me.

Q. Do you mean to say that money passed by the company to other parties on his approval?

A. Yes sir. It was necessary that he should have pretty full power, because I was absent in New York sometimes three months at a time. [779]

Q. Now, during that time did he have officially any power to sign correspondence relative to matters pertaining to that office?

A. Oh, yes. He dictated letters on his own initiative—had to in order to carry on the business of the department.

Q. Then, in fine, I understand you to say that he exercised all the functions and duties which you as acting land agent were empowered to do, excepting those which were especially limited to you personally?

A. Yes sir.

Q. Is that correct?

A. Yes sir.

Q. How long was Mr. Stone employed in that capacity, to your knowledge?

A. He was in the department when I took hold of it, as the land examiner, the field agent of the department; and after I came there he never went into the field again as a field agent. He became my acting—

he became assistant to the acting land agent, I think in the same month that I was appointed.

Q. Was his appointment by you?

A. Yes.

Q. Was that appointment in any way required to be submitted to anyone else for approval?

A. Well, it may not have been required, but I did submit it.

Q. And to whom?

A. To Mr. Kruttschnitt.

Q. Who at that time was what officer?

A. He was the vice-president and general manager.

Q. Of what company?

A. Of the Southern Pacific Company.

Q. You mean the Kentucky corporation? [780]

A. Yes sir.

Q. And defendant in this suit?

A. I don't know who the defendant in this suit is.

Q. Well, that company is a defendant in this suit, the Kentucky corporation.

A. Well.

Q. Were you acquainted with a man by the name of Josiah Owen at any time while you were in the land department of that company?

A. I think I knew Mr. Owen to speak to. I never had any business with him.

Q. Well, did you ever meet a man by the name of Dumble?

A. Oh, yes; I knew Professor Dumble well.

Q. Now, was Mr. Owen, to your knowledge, in any way connected with the office of Mr. Dumble?

A. So I always understood—that he was an assistant.

Q. And in what department was Mr. Dumble?

A. Why, he was in a class by himself, I think—he was the geologist.

Q. He was the geologist of what company?

A. Well, I don't know that I can answer that. I have always supposed of the Southern Pacific Company.

Q. Well, as geologist of the Southern Pacific Company did he have anything to do with lands of the Southern Pacific Railroad Company?

A. No sir.

Q. That is, officially, you say?

A. No sir; he had none that I know of.

Q. But he did attempt, did he not, to have something to do with the lands of the Southern Pacific Railroad Company?

A. Oh, he "butted in" frequently.

Q. Now, I show you this paper, Mr. Eberlein. Will you [781] please examine it and tell me where the original is, if you know, or what became of it? What is that paper?

A. That is a copy of a letter that was written to me by C. H. Markham, 2nd of August, 1904. It is a copy of a badly carbonized letter that came out from the ruins of our vault and was copied.

Q. Do you know what was done with the original after this copy was made?

A. Oh, it was utterly destroyed in the transcription of it. It was badly carbonized. There was a file there that referred to this certain matter, and it was very badly damaged and under my order it was copied—everything that could be copied out of it—and compared as carefully as could be.

Q. I notice on this paper the names “Compared by H. K. and L. A.” What do those initials refer to?

A. The “H. K.” is Herman Koch, and “L. A.” refers to Lottie Abrams. They were two clerks in the department who attended to the comparing of all that correspondence that was transcribed from the carbonized papers and documents.

Q. Was this copy made under your direction and supervision?

A. Yes sir.

Mr. Mills—I offer this in evidence.

Mr. Lewers—Object to the introduction of this, on the ground that no sufficient foundation has been laid, in that it appears from the testimony introduced that the witness did not himself copy this and it was not compared by him; and we object on the further ground that it is irrelevant to any issue in this case, and also that the signature of the original has not been identified.

Q. By Mr. Mills—This appears to pertain to a proposed lease [782] between the Southern Pacific Railroad Company and the Kern Trading and Oil Company, dated August 2, 1904. Will you kindly read it again Mr. Eberlein, to yourself, and state

whether it is a true copy of the original which you say was destroyed?

Mr. Lewers—We object to that question, on the ground that it already appears that the witness has not compared it himself, and there has been no identification of the original instrument.

A. I believe it is.

Mr. Mills—I will read this into the record:

COPY

“Southern Pacific Company

San Francisco, Cal., August 2nd, 1904.

Mr. Chas. W. Eberlein,

Acting Land Agent, S. P. R. R. Co., City.

Dear Sir:—Enclosed is ten year lease dated August 2nd, 1904, to be entered into between the Southern Pacific Railroad Company and the Kern Trading & Oil Company.

You will note that I have signed this as President of the Kern Trading & Oil Company and would ask that you sign it as Acting Land Agent of the Southern Pacific Railroad Company, returning the lease to me when this shall have been done, in order that I may have it attested by Secretary Willcutt for both Companies.

Yours truly,

(Signed) C. H. Markham.

GLK SCT

GLK

Enclosure:

Compared By: H. K.

L

A”

Mr. Mills—Mark that government's Exhibit EE.
[783]

The letter last referred to and offered in evidence is marked "Plaintiff's Exhibit EE—L. L."

Q. I show you this paper, Mr. Eberlein. Will you state what that is?

A. It is a copy of a telegram, dated August 4, 1904, sent to me at Denver, from Mr. George A. Stone.

Q. How was that copy prepared?

A. It was prepared the same as the other.

Q. The same as the last exhibit?

A. From destroyed stuff that was very fragile—could not stand any wear at all—and it was copied to preserve what was in them.

Q. Is that original destroyed?

A. Yes sir.

Q. Was this telegram which I now have in hand and the previous exhibit marked government's Exhibit EE, before the fire preserved in any file in the usual course of business pertaining to the matters to which they referred?

A. That was a private file.

Mr. Mills—We offer this in evidence.

Mr. Lewers—We make the same objection.

Mr. Mills—I will read this into the record; and ask that it be marked Plaintiff's Exhibit FF.

COPY

"TELEGRAM

San Francisco, Cal., August 4th, '04.

Charles W. Eberlein,

care, C. E. Wantland, General Sales Agent, Union

Pacific R. R.

1025— 17th Street, Denver, Colorado.

Received yesterday from Mr. Markham lease to Kern Trading and [784] Oil Company for your signature.

Geo. A. Stone.

Compared By: H. K.

L

A''

Q. Will you please examine this paper, Mr. Eberlein, and state what that is?

A. That is a telegram from me, dated August 4th, 1904, to George A. Stone.

Q. That is a copy of the telegram, is it?

A. That is a copy of the original.

Q. What became of the original telegram?

A. It was destroyed as a result of the fire.

Q. And is this, the same as the other copies which have been introduced, an exact copy?

A. Exactly the same; compared copy, and belonged to the same file.

Q. Does this paper which I hold in my hand refer in any way to the telegram sent you by George A. Stone and marked Exhibit FF?

Mr. Lewers—I submit the paper itself is the best evidence.

A. It is an answer to it.

Mr. Mills—We offer this in evidence, and ask it to be marked Plaintiff's Exhibit GG.

Mr. Lewers—The same objection.

Mr. Mills—I will read this into the record:

COPY

"TELEGRAM

Denver, Aug. 4th, '04.

Geo. Stone, [785]

Dept. S. P.

S. F.

Hold Kern Trading and Oil Company lease for execution until my return carry out orders I have given no lands for sale at present and no oil lands for sale at any price do as told without reference to me. Leave for Omaha to-morrow afternoon Omaha Saturday.

CHAS. W. EBERLEIN.

Compared By: H. K.

L

A''

Q. I show you this paper, Mr. Eberlein, which purports to be a copy of some original. What is that paper?

That is a copy of a letter addressed by George A. Stone, assistant to acting land agent, to C. H. Markham, vice-president and general manager of the Southern Pacific Company, dated August 4th, 1904.

Q. What became of the original of this letter?

A. It was destroyed just as the others were. The same file.

Q. The same statement made applies to this letter as applied to the others?

A. Applies to this; everything in this file.

Mr. Mills—We offer this in evidence and ask it to be marked Plaintiff's Exhibit HH.

Mr. Lewers—The same objection.

The copy of letter last referred to and offered in evidence is marked “Plaintiff’s Exhibit HH—L. L.”

Mr. Mills—I will read this into evidence. [786]

COPY

“Dictated

S

August, 5th, 1904.

Mr. C. H. Markham,

Vice-President and General Manager,

Southern Pacific Company, San Francisco, California.

Dear Sir:

Your favor of the 2nd instant, addressed to Mr. Charles W. Eberlein, Acting Land Agent, inclosing ten year lease, dated August 2nd, 1904, between the Southern Pacific Railroad Company and the Kern Trading and Oil Company, with request that Mr. Eberlein sign it as Acting Land Agent and return it to you, was received after his departure on a short trip to Denver.

I have called it to his attention, and he has advised me that he will take up the matter immediately upon his return.

Yours very truly,

GEO. A. STONE,

Asst. to Acting Land Agent.

RSG.

Compared By: H. K.

L

A”

Q. Mr. Eberlein, I show you this paper. Will you state what that is?

A. That is a copy of a letter from Mr. C. H. Markham to me, dated September 5th, 1904.

Q. What became of the original of this letter?

A. Destroyed the same as all the rest of the letters in that file.

Q. And your statement with reference to this letter applies the same as to the other exhibits that I have offered?

A. Exactly. [787]

Q. That were taken from that file?

A. Yes sir.

Mr. Mills—We offer this in evidence, and ask that it be marked Plaintiff's Exhibit II.

Mr. Lewers—The same objection.

The copy of letter last above referred to and offered in evidence is marked "Plaintiff's Exhibit II—L. L."

Mr. Mills—I will read this into the record.

COPY

"Southern Pacific Company

San Francisco, Cal., September 5, 1904.

Mr. Chas. W. Eberlein,

Acting Land Agent,

San Francisco.

Dear Sir:

Referring to my letter of August 2nd on the subject of ten year lease between the Southern Pacific Company and the Kern Trading & Oil Company, and which was answered by your Mr. Stone, August 5th,

to effect that owing to your departure from the City matter would have to await your return, would ask when I may expect to receive deed in question.

Yours truly,

(Signed) C. H. Markham

GLK

BCE

Compared By: H. K.

L

A''

Q. I show you this letter, Mr. Eberlein, and will ask you [788] what it is, what it refers to.

A. That is a letter from myself to W. D. Cornish, dated September 10, 1904. It is a copy of an original now destroyed, the same as all the rest in this file.

Q. Who was Mr. Cornish at that time?

Q. By Mr. Lewers—You say it was a copy of the original?

A. It is a copy of the original that was destroyed.

Q. By Mr. Mills—And is this the same as the others I have offered—true and correct copies of those originals which were destroyed?

A. As I believe and understand, it is a true and correct copy of the original.

Q. Who was Mr. Cornish?

A. He was vice-president of the Southern Pacific Company, resident in New York.

Mr. Mills—I offer this in evidence and ask that it be marked Plaintiff's Exhibit JJ.

Q. By Mr. Lewers—Is it a copy of an original or copy of a copy?

A. Copy of the original.

Q. And was the original returned from Mr. Cornish?

A. Oh, no; pardon me. That would have to be a copy of the file, of the carbon copy of the file. I will add that all those letters that are addressed by me, of course these are copies of carbon copies.

Q. By Mr. Mills—Yes. They were all contained in that file, were they not?

A. All in that file, kept together.

Mr. Lewers—We make the same objection, and the additional objection that the original is not accounted for. [789]

The copy of letter last referred to and offered in evidence is marked "Plaintiff's Exhibit JJ—L. L."

Mr. Mills—I will read this into the record:

COPY

"Dictated

September 10. 1904.

Hon. W. D. Cornish,

Vice-President, Southern Pacific Company,

120 Broadway, New York.

Dear Sir:

For your information, I beg to hand you copy of letter of this date to Mr. Markham, setting forth objections to the lease Southern Pacific Railroad Company to the Kern Trading and Oil Company.

Yours very truly,

CHARLES W. EBERLEIN,
Acting Land Agent.

JRH

INC

Compared By: H. K.

L

A''

Q. Who was J. R. H?

A. He was my stenographer, J. R. Hurdie.

Q. I show you this letter, Mr. Eberlein. State what that is.

A. That is a copy of a carbon copy of a letter I sent to C. H. Markham September 20, 1904.

Q. Is that a copy prepared in the same way you have mentioned as to these other letters?

A. The same way.

Q. And from that same file? [790]

A. The same file.

Q. And the original copy from which this was taken has been destroyed?

A. Yes sir.

Mr. Mills—We offer this letter in evidence and ask that it be marked Plaintiff's Exhibit KK.

Mr. Lewers—We make the same objection as we did to the last exhibit.

The copy of letter last referred to and offered in evidence is marked "Plaintiff's Exhibit KK—L. L."

Mr. Mills—I will read this exhibit into the record.

COPY

"Dictated

September 10, 1904.

Mr. C. H. Markham,

General Manager, Southern Pacific Company,
San Francisco, Cal.

Dear Sir:

I have your letter of September 5th in regard to the lease Southern Pacific Railroad Company to the Kern Trading and Oil Company.

I have been over this matter with some thoroughness, and I beg to report that this instrument is not in condition for execution.

I wish to say, furthermore, that this department was not consulted in the making of this lease, or the mistakes made could have been avoided. I refer to the inclusion of lands not in the ownership of the Southern Pacific Railroad Company and entirely outside of its granted and indemnity limits, and never in its ownership so far as this department is advised. Other [791] lands, presumably oil lands, have been omitted.

What appears to be a mistake is the inclusion in this lease of the whole townsite of McKittrick.

I do not know on what ground such inclusion is made, but if it is intended to be included the description must be of the townsite and not of the government sub-division which has been duly platted.

There are several provisions of the lease itself which I think should be modified.

As it stands the lease provides for the payment of a royalty of one tenth of the gross product or 'one-tenth part of the gross amount of moneys received from the sale of minerals, substances and products.'

The obvious construction of this clause is a permission to some one, not specified, to sell the Company's royalty without limitation as to who may do so or the price to be received, etc.

That clause giving permission to the lessee to use our oil or dry asphaltum for fuel, etc., without payment of royalty thereon, is in conflict with that provision which gives to the Company one-tenth of the gross product.

In my opinion, the one-tenth royalty being a small royalty, at the present time at least, should not be subject to any deduction, and especially to a deduction of this kind which is indefinite.

That clause of the lease which provides for the payment of taxes, upon improvements only, is not, in my opinion, fair to the railroad company.

By reason of the improvements the assessment on the land is largely increased. The Company gets only one-tenth of the product and pays a large part of it in taxes upon an exceedingly high valuation.
[792]

Taxation upon improvements amounts to but little. The improvements are not of an expensive character and are subject to deterioration from the time they are made.

In addition to this there is a very urgent reason for delaying the execution of these papers.

We have selected a large body of lands interspersed with the lands sought to be conveyed by this lease, and which we have represented as non-mineral in character.

Should the existence of this lease become known it would go a long way toward establishing the mineral character of the lands referred to, and which are still unpatented.

We could not successfully resist a mineral filing after we have practically established the mineral character of the land.

I would suggest delay at least until this matter of patent can be adjusted.

I call your attention to the fact that this lease conveys oil lands and also assigns the existing oil leases.

That being the case the management and control of oil matters will pass entirely from the Land Department.

It seems a little singular that the Company should assign oil leases which provide for the payment of royalties running from one-fifth to one-eighth, and now being paid to the Company at that rate, and receive therefrom a decreased revenue without consideration, so far as disclosed by these papers.

If you desire a return of the file it will be sent to you immediately.

As I am about to leave for Portland, to be gone for some time, I would suggest that this matter be kept in abeyance until such time as I can run over the lands carefully and be sure that the mistakes referred to have been corrected. [793]

Yours very truly,

CHARLES W. EBERLEIN,

Acting Land Agent.

JRH

Compared By: H. K.

L

A”

Q. The initials “J. R. H.”, Mr. Eberlein, refer to the stenographer you have mentioned?

A. Yes sir.

Q. And “H. K.” and “L. A.” are the same parties who compared all these papers?

A. Yes sir.

Q. I think at this time I may ask you this question: You say in this letter, as a reason for delaying the execution of the lease referred to, “We have selected a large body of lands interspersed with the lands sought to be conveyed by this lease and which we have represented as non-mineral in character.” What lands did you refer to when you said that in this letter? Did you refer to lands east of McKittrick, in Township 30-23?

A. I will have to refer to those papers there before I can say.

Q. This is what purports to be a plat.

A. Generally the lands I referred to were those contained in the list that I had made in—selection list, in 1903, in August or September, 1903. Yes; those are the lands.

Q. What township and range?

A. In Township 30 South, Range 23 East, Mount Diablo.

Q. And what sections, please?

A. All of 15, part of 17, part of 19, all of 21, all of 23, all of 25, all of 27, all of 29, all of 33, all of 35.

Q. In Township 30 South, Range 23 East? [794]

A. 23 East.

Q. I will read this extract from your letter: "Should the existence of this lease become known, it would go a long way toward establishing the mineral character of the lands referred to and which are still unpatented." Did you by that refer to the lands that you have just described?

A. Yes sir; I think I did.

Q. I show you this paper and ask you what it is.

A. Letter of C. H. Markham to me, dated September 14, 1904. That is a copy of his letter which is now destroyed.

Q. Was the original of that letter destroyed in the conflagration?

A. The same time that all the rest of these letters were.

Q. And the copy was made at the time it was in a bad state of carbonization?

A. Yes sir.

Q. This is, as far as you know, a correct and compared copy?

A. I believe it is.

Mr. Mills—We offer this letter in evidence and ask that it be marked "Plaintiff's Exhibit LL."

The copy of letter last referred to and offered in evidence is marked "Plaintiff's Exhibit LL—L. L."

Q. Who was Mr. C. H. Markham? The same Mr. Markham referred to?

A. The same man; vice-president and general manager of the Southern Pacific Company.

Q. The Kentucky corporation?

A. Yes sir. [795]

Mr. Mills—I will read this into the record:

“COPY—from Copy.

SOUTHERN PACIFIC COMPANY

San Francisco, Cal., Sept. 14, 1904.

Mr. C. W. Eberlein,

Acting Land Agent,

San Francisco.

Dear Sir:

Referring to your letter of Sept. 10 relative to status of our oil leases: I see no objection to going ahead with the original program of assigning to the Kern Trading & Oil Co. all oil leases now outstanding but I shall want you to continue your connection with the leases until such time as questions now under consideration shall have been disposed of.

I quite agree with you that as a condition precedent to the continuance of at least a majority of the defaulted leases, we should require that all undeveloped territory be surrendered to the Company, leaving only the tract actually being developed subject to the terms of the lease. As a further consideration, I believe we should require that the product be shipped over the Southern Pacific Co's lines. I have discussed this matter with Mr. Herrin, and while he is of the opinion that under the contracts the lessees are in default, and could be gotten rid of, he agrees with us, that as a matter of policy it ought not to be done. I think, therefore, if you will go ahead with the matter upon the general lines laid

down in the foregoing, it will be very much better than to attempt to take arbitrary action, more especially in cases where parties are able to develop if we force them into that position.

Yours truly, (Signed) C. H. Markham.

CHM FM

Compared By: H. K.—L

A." [796]

Q. I show you this paper, Mr. Eberlein, and will ask you what it is?

A. That is a copy of Mr. Markham's letter to me of September 21, 1904.

Q. What became of the original of this letter?

A. That was destroyed in the same way the rest of the file was.

Q. Was this compared and copied under your direction and supervision?

A. Yes sir.

Q. And is a correct and compared copy?

A. I believe so.

Mr. Mills—We offer this in evidence and ask that it be marked "Plaintiff's Exhibit MM."

Mr. Lewers—We make the same general objection.

The copy of letter last referred to and offered in evidence is marked "Plaintiff's Exhibit MM—L. L."

Mr. Mills—I will read this:

“COPY

SOUTHERN PACIFIC COMPANY

San Francisco, Cal., September 21, 1904.

Mr. C. W. Eberlein,
Acting Land Agent,
San Francisco, Cal.

Dear Sir:

Referring to your letter of September 10th on the subject of proposed lease from the Southern Pacific Railroad Company to the Kern Trading & Oil Company, would ask that you [797] kindly check this matter at an early date as possible and let me know promptly from your standpoint whether there is anything in the lease that is really objectionable, consulting with Mr. Dumble and the Law Department in order that the lease may be properly drawn.

Yours truly,

(SIGNED) C. H. Markham,

GLK BCE

G. L. K.

W. F. H.

E. T. D.

Compared By: H. K.

L

A.”

Q. You are acquainted with the custom, in the matter of correspondence in your department and in the Southern Pacific Railroad Company, generally, are you not?

A. I believe so.

Q. Will you tell me what the initials “W. F. H.” and “E. T. D.” mean?

A. As I understand it, that means that a carbon copy of that letter was sent to both those gentlemen—William F. Herrin and E. T. Dumble.

Q. Who was Mr. W. F. Herrin at that time?

A. Chief counsel of the Southern Pacific Company.

Q. And Mr. E. T. Dumble is the Mr. Dumble, the geologist?

A. That is the same Dumble we are talking about here, consulting geologist.

Q. I show you this paper. Will you please state what that is?

A. That is a letter from me; that is a copy of the carbon copy of my letter to C. H. Markham, dated September 21, 1904.

Q. Was this copy made in the same way that these other [798] copies were made?

A. Exactly the same, and for the same reason.

Q. And was the copy from which this was taken in the file that you have referred to which was burned?

A. Yes sir. It was destroyed by reason of its decrepit condition after it came out of the fire.

Mr. Mills—I offer this letter in evidence and ask that it be marked “Plaintiff’s Exhibit NN.”

Mr. Lewers—Same general objection.

The copy of letter last referred to and offered in evidence is marked “Plaintiff’s Exhibit NN—L. L.”

Mr. Mills—I will read into the record this exhibit:

“COPY

Dictated.

Portland, Oregon, September 21, 1904.

Mr. C. H. Markham,

General Manager, Southern Pacific Company,
San Francisco, Cal.

Dear Sir:

Your letter of September 14th regarding the Kern Trading and Oil Company, as to the policy to be pursued by us in regard to existing oil leases to be assigned to that corporation, has been forwarded to me.

I think that the policy outlined in your letter is by all odds the best, and I am very glad indeed to be able to offer some kind of a compromise to our lessees.

It has always seemed to me that the policy heretofore insisted upon was unnecessarily harsh and could do the Company no good. I have had no option, however, other than to pursue it. [799]

I will take this matter up immediately upon my return and I think we can make such a settlement as will give satisfaction all along the line.

I shall have a new oil lease to submit to you, one feature of which will be that the lessees will be restricted to just so much land as they can, and will bind themselves to develop.

The effect of this will be to entirely relieve us from such a condition of affairs as now exists.

I note what you say in regard to the continuance of my connection until all questions under consideration have been disposed of.

Please understand that nothing that I have said heretofore C. H. M.—2— should be construed as a desire on my part to escape any work or responsibility in regard to these matters.

I don't know anything about the Kern Trading and Oily Company, and have been left in the dark entirely as to the object and purpose of it.

I did not wish to blunder along and bring myself into collision with Mr. Dumble in regard to matters as to which it would be his right and not mine to decide.

I wish to remind you, once more, that the lease to the Kern Trading and Oil Company, submitted to me, should not go through in its present shape, and that the schedule of lands referred to should be revised and corrected.

However, this is a matter of detail as to which I can satisfy you on my return.

Yours very truly,

CHARLES W. EBERLEIN,
Acting Land Agent.

JRH

Compared By: H. K.

L

A'' [800]

Q. I show you this paper, and ask you what it is.

A. It is a letter from myself to Mr. E. T. Dumble, dated October 7, 1904.

Q. Is this Mr. Dumble the same Mr. Dumble referred to in the previous exhibit?

A. Yes sir.

Q. And state how this copy was made.

A. That is a copy of the carbon copy of my letter to Mr. Dumble.

Q. Taken from this file that you refer to?

A. Yes sir; taken from a badly damaged file.

Q. And what became of the copy from which this was made?

A. Oh, it is gone long ago. There was nothing but dust and ashes left of it when they got through.

Mr. Mills—We offer this in evidence and ask that it be marked Plaintiff's Exhibit OO.

Mr. Lewers—Same general objection.

The copy of letter last referred to and offered in evidence is marked "Plaintiff's Exhibit OO—L. L."

Mr. Mills—I will read this exhibit into the record:

"COPY—From File No. 47

Oct. 7th, 1904.

Mr. E. T. Dumble,
Consulting Geologist,
Bldg.

Dear Sir:

Referring to your note of Oct. 5th., I beg to say I will be glad to take matters up with you as suggested any time tomorrow that will be convenient to you, I would suggest that you [801] might find it more convenient to come to room 71 where we can have a room to ourselves and not be disturbed, if

however, you prefer I should come to your room, please advise me.

Yours truly,

CHARLES W. EBERLEIN,
Acting Land Agent.

‘Donaldson’

Compared By: H. K.

L

A”

Q. What does that refer to, that “Donaldson”?

A. I don’t know. I can’t imagine what that was. Probably the best they could do, from the carbonized condition of the file. They got the word “Donaldson” there, but what it means I don’t know.

Q. I show you this paper, and ask you what it is.

A. That is a copy of the carbon copy of my letter to Mr. E. T. Dumble, of October 8th, 1904.

Q. Was the paper from which that was copied destroyed in the fire?

A. Yes sir; that is my understanding.

Q. And in that file, the same file?

A. The same file.

Mr. Mills—We offer this in evidence and ask that it be marked Plaintiff’s Exhibit PP.

Mr. Lewers—The same general objection.

The copy of letter last referred to and offered in evidence is marked “Plaintiff’s Exhibit PP—L. L.”

Mr. Mills—I will read government’s Exhibit PP into the record: [802]

“COPY

Dictated
S.

October 8, 1904.

Mr. E. T. Dumble,
Consulting Geologist,
Southern Pacific Railroad Company,
Building.

Dear Sir:

Herewith I hand you plats showing the status of lands within the Southern Pacific Railroad Company's grant in

Township 19 South, Ranges 14 and 15 East M.
D. M.

Township 20 South—Ranges 14 and 15 East M.
D. M.

Township 21 South—Ranges 14 and 15 East M.
D. M. Coalinga district, and

Township 30 South—Ranges 21, 22 and 23 East M.
D. M.

Township 31 South—Ranges 22, 23 and 24 East,
M. D. M.

Township 32 South—Ranges 23 and 24 East, M.
D. M. in the McKittrick, Midway and Sunset districts.

Kindly acknowledge receipt.

Yours very truly,

CHARLES W. EBERLEIN,

S

Acting Land Agent.

Inc.

RSG.

Compared By: H. K.

L. A.”

Q. Do you know what the initial “S” under your name is?

A. Stone.

Q. Does that refer to Mr. George A. Stone, who testified this morning?

A. Yes sir. [803]

Q. And the same at the top of the page?

A. Yes.

Q. I hand you another paper, Mr. Eberlein, and I will ask you what that is.

A. Copy of C. H. Markham’s letter to me, dated October 17, 1904. The original is destroyed. Belonged to the same file as the rest of these letters.

Q. And what you have said about the destruction of the originals applies to this as well as to the other papers contained in that file?

A. Everything contained in that file.

Mr. Mills—We offer this in evidence and ask that it be marked Plaintiff’s Exhibit QQ.

Mr. Lewers—Same general objection.

The copy of letter last referred to and offered in evidence is marked “Plaintiff’s Exhibit QQ—L. L.”

Mr. Mills—I will read government’s Exhibit QQ:

“COPY

Southern Pacific Company

San Francisco, Cal., October 17, 1904.

Mr. C. W. Eberlein,
Acting Land Agent,
San Francisco, Cal.

Dear Sir:

September 21st I wrote you on the subject of proposed lease from the Southern Pacific Company to the Kern Trading & Oil Company, asking that you kindly check this matter at an early date and let me know from your standpoint whether there is anything in the lease that is really objectionable. Will [804] you kindly advise status of matter at present time.

Yours truly,

(Signed) C. H. Markham.

BCE

GLK

Compared By: H.K.
L. A.”

Q. I notice that this letter refers to a proposed lease from the Southern Pacific Company to the Kern Trading and Oil Company, and will ask you whether that is the same lease which has been referred to as proposed between the Southern Pacific Railroad Company and the Kern Trading and Oil Company.

A. Yes sir; it is the same thing that is referred to in all those letters.

Q. Now, I will show you this paper, and ask you what that is.

A. That is a copy of the carbon copy of my letter to Markham of October 18, 1904.

Q. And that copy was made under your direction and supervision, the same as the other papers—

A. Yes sir.

Q. —which have been introduced as coming from that file?

A. That destroyed file.

Q. And the paper from which this was copied, you say, has been destroyed in that file by the fire?

A. Yes sir.

Mr. Mills—We offer this in evidence and ask that it be marked Plaintiff's Exhibit RR.

Mr. Lewers—Same general objection.

The copy of letter last referred to and offered in evidence is marked "Plaintiff's Exhibit RR—L.L." [805]

Mr. Mills—I will read government's Exhibit RR into the record:

"COPY

Dictated.

October 18, 1904.

Mr. C. H. Markham,

Vice-President & General Manager,

Southern Pacific Company,

San Francisco, Cal.

Dear Sir:

I am in receipt of your letter of the 17th instant, calling attention to the matter of the proposed lease from the Southern Pacific Railroad Company to the Kern Trading & Oil Company.

Your letter has anticipated my letter to you on this

subject, Mr. Dumble and I have had this matter under consideration in the past few days.

The consideration of several matters in this connection is not yet complete, for the reason that Mr. Dumble is looking over his data with the intention, as I understand it, of furnishing a new list of lands to be conveyed.

The lease as now drawn conveys some lands outside of the grant, and omits others that should be included.

This is the most important matter connected with this lease, and I think the whole transaction can be closed as soon as Mr. Dumble reports.

Yours very truly,

CHARLES W. EBERLEIN

Acting Land Agent

ESR

Compared By: H. K.

L. A." [806]

Q. Who was E.S.R., do you remember, Mr. Eberlein?

A. I don't know. Some of the numerous peripatetic stenographers we had right after the fire, I suppose. I don't know.

Q. I show you this paper, and I will ask you what it is.

A. That is a copy of Mr. Dumble's letter—This is a copy of a carbon copy of a letter from E. T. Dumble to Mr. W. H. Bancroft, dated December 7, 1904.

Q. And was this made in the same way and under your direction and supervision?

A. Yes sir.

Q. From a part of the file that you have referred to?

A. Yes sir.

Q. And was the paper from which this was copied destroyed?

A. Yes sir.

Q. These initials C.C. and C.W.E.—what does that mean?

A. It means carbon copy to C. W. Eberlein.

Mr. Mills—We will offer this in evidence and ask that it be marked Plaintiff's Exhibit SS.

Mr. Lewers—The same general objection.

The copy of letter last referred to and offered in evidence is marked "Plaintiff's Exhibit SS—L.L."

Mr. Mills—I will read government's Exhibit SS into the record: [807]

"COPY

Southern Pacific Company

San Francisco, Cal., Dec. 7, 1904.

Mr. W. H. Bancroft,

Acting Genl. Mgr., City.

Dear Sir:

In connection with our correspondence regarding the transfer of property to the Kern Trading & Oil Company, I have had a conversation with Mr. Eberlein and it seems for reasons of policy regarding certain unpatented lands that it will be best not to execute the lease of lands between the S. P. R. R. Co. and the K. T. & O. Co. at present.

I would, therefore, suggest that the papers covering the transfer of property from the S. P. Co. to

K. T. & O. Co. be executed and that the lease of lands in the McKittrick and Coalinga districts from the S. P. R. R. Co. to the K. T. & O. Co., be held up for the present.

Yours very truly,

D-R (Signed) E. T. DUMBLE.

CC CWE

Compared By: H. K.

L. A.”

Q. Who was Mr. Bancroft?

A. He was the vice-president and general manager of the Oregon Short Line, headquarters at Salt Lake City. At the time that letter was written he was temporarily the acting general manager of the Southern Pacific Company. Mr. C. H. Markham resigned, I think, in October—I believe it was October; and pending the appointment of a successor Mr. Bancroft occupied the—warmed the seat of general manager at headquarters. [808]

Q. I understand you to say that the initials “C. C.” “C. W. E.” means that a carbon copy of this letter to Mr. Bancroft was sent to you?

A. Yes sir.

Q. And was preserved in that same file.

A. Yes sir.

Q. I show you this paper, Mr. Eberlein, and ask you what it is.

A. That is the original carbon copy of a personal letter from myself to W. D. Cornish, dated September 3, 1904.

Q. Who was Mr. W. D. Cornish at that time?

A. He held the title of vice-president of the Southern Pacific Company, and he was my superior officers in land matters.

Q. This I understand to be your own carbon copy of the original letter which you transmitted to Mr. W. D. Cornish on the date that it bears?

A. Yes sir.

Q. You were personally acquainted with Mr. Cornish, were you not?

A. Yes sir, very well acquainted with him; for a great many years.

Q. Now, after the transmission of this letter to Mr. Cornish, did you ever have any talk with Mr. Cornish relative to any disposition which he made of all the letters sent to him by you?

Mr. Lewers—To which we object, on the ground that that is calling for hearsay testimony.

A. Yes; I talked with him.

Q. By Mr. Mills—And where was that talk, Mr. Eberlein?

A. On a private car out of Ogden, in the fall of 1907.

Q. Will you state what, if anything, he said about the destruction of any letters which he had received from you? [809]

Mr. Lewers—We renew the same objection; on the ground that no foundation has been laid and it is calling for purely hearsay testimony.

A. He said that inasmuch as these letters, reports from me, that he held having come from me in all those years, inasmuch as the papers of the company

in the Land Office were destroyed, why, he had destroyed those.

Q. By Mr. Mills—Did he say anything about having destroyed all of the papers which he received from you?

A. That is what I understood him to say.

Q. Had this letter, prior to the time that he made that statement to you, been transmitted to him?

A. Yes. Oh, yes.

Q. Will you please examine that carefully and state whether it is a correct copy of the letter which you sent to Mr. Cornish?

A. Yes; that is the exact copy.

Mr. Mills—We offer this letter in evidence, and ask that it be marked Plaintiff's Exhibit TT.

Mr. Lewers—Same general objection.

The copy of letter last referred to and offered in evidence is marked "Plaintiff's Exhibit TT—L.L."

Mr. Mills—I will read this into the record, it being a letter consisting of four pages:

"Dictated. *Personal* September 3, 1904.

Hon. W. D. Cornish,

Vice President, Southern Pacific Company,

120 Broadway, New York. [810]

Dear Sir:—

As you are aware, the Kern Trading and Oil Company has been organized.

I am totally in the dark as to the objects, rights, etc., of this corporation. I have asked for information several times, but it has never been furnished me.

I was told in a general way that this company was organized for the purpose of taking over the oil lands of the Southern Pacific Railroad Company and operating the same.

A lease has been made for the term of ten years from the first of January, 1904, with a renewable term of the same period.

The lease is made by the Southern Pacific Railroad Company to the Kern Trading and Oil Company, and covers all the lands now in the ownership of the Company that either are or are supposed to be oil bearing.

The consideration for this lease is a royalty of one-tenth of the gross product, or, "one-tenth of the gross amount of moneys received from the sale of said minerals, substances and products".

This lease was concocted without any reference to me, and it has now been sent over for me to execute on behalf of the Southern Pacific Railroad Company.
W.D.C.—2—

I don't know that there is any particular objection to it, as perhaps one-tenth of the product may be fair.

The Company now receives one-fifth in some cases and in other cases one-eighth, and this is at a still lower rate. However, I do not object to that.

I am, however, somewhat slow about signing this document and tying the railroad company up for a series of years.

Of course I know that it is for the benefit of the [811] Southern Pacific Company, but there is one feature which seems to me to be important. Inasmuch as the lease is made by the Land Department,

and the head of that department is taking the responsibility therefor, it does not seem proper that the Southern Pacific Railroad Company shall have nothing to say in regard to the disposition of its royalty oil.

The lease provides that the oil may be sold and the one-tenth of the moneys received be turned over to the Land Department.

It leaves the matter entirely in the management of the Southern Pacific Company, or the Kern Trading and Oil Company, I don't know which.

In all events it is possible for some man not connected with the Land Department, nor with the Southern Pacific *Railroad Company*, to make a price on royalty oil belonging to the railroad company and sell it. There is no provision in the lease that the price to be received, in case the oil is sold, shall be the market price, or any other price.

You can see that there is a wide open door for the disposition of the Land Department property at ruinous prices, thus

W.D.C.—3—

depriving the Land Department and the bond holders of a fair return for their property.

I feel that it is incumbent upon me to look somewhat into this instrument, and into the future. I know that it is hardly probable but still it is possible that the control of this oil company may by some contingency pass out of the present hands, and if it should fall into hostile control the railroad company would get very much the worst of it.

As I have already stated, this matter has been hatched for my signature without submission to me, or without consultation.

I know the answer, in case the question was raised, would [812] be that it is all a family matter and that I need not concern myself about it.

However, I take it that you are somewhat interested in this matter, and I want your advice as to what you think would better be done to protect us against future complications.

Do you think it would be wise and expedient and would it serve the purpose of protection if I were to demand action of the Board of Directors of the Southern Pacific Railroad Company ratifying and confirming the lease as it stands, and directing the Land Agent to sign the lease.

It seems to me that some such action is not only desirable but necessary, inasmuch as it conveys control of the most valuable lands in the grant for a long term of years.

This lease has been lying here for sometime during my absence and I may be called upon for it at any time. I would therefore esteem it a great favor if you would give me any suggestions you may have by wire.

I can stave off the delivery of this document for some time yet, I think, for the reason that if the knowledge of this

W.D.C.—4—

lease becomes public property it will probably cause us a great deal of trouble in the United States Land Office, and may result in the loss of a large body of

adjacent lands which may hereafter turn out to be mineral and oil bearing.

I found on taking charge of this office that a large body of our lands, especially Indemnity lands in the Coalinga, McKittrick and Sunset fields, had been withdrawn by the United States from entry, pending examination as to their mineral character.

I have worked very hard and very steadily to get the United States to complete its report and dispose of this matter. I have just succeeded in getting the Special Agent in charge to [813] make a report releasing our land from interdictment.

If it becomes known that we have executed a lease of lands interspersed with those already under selection by us, and that the lease is for oil purposes, it seems to me that it will immediately encourage oil speculators to file upon the lands so selected and that the government will have good ground for refusing patent, inasmuch as we practically fix the mineral status of the land by this lease.

Yours very truly,

CHARLES W. EBERLEIN,

Acting Land Agent.

JRH."

Q. Now, you have referred in this letter dated September 3, 1904, to a large body of adjacent lands which may hereafter turn out to be mineral and oil-bearing. Are those the lands to which you referred in the previous question that I asked you where you referred to a map, in 30-23?

A. Why, no. Those lands were—What is the date of this letter?

Q. This is September 3, 1904.

A. Those lands were all selected and the selection list approved. No; there were other lands in the same neighborhood.

Q. There were other adjacent lands which you referred to, you say?

A. Yes sir; unpatented, unselected lands in that same township—same range, rather.

Whereupon the further taking of testimony herein was adjourned until Saturday, May 18th, 1912, at 10 o'clock A. M. [814]

On Saturday, May 18, 1912, at 10 o'clock A. M., the further taking of testimony herein was resumed.

CHARLES W. EBERLEIN,

recalled, DIRECT EXAMINATION resumed:
By Mr. Mills:

Q. Mr. Eberlein, I asked you yesterday in connection with government's Exhibit KK regarding this language in that letter: "We have selected a large body of lands interspersed with the lands sought to be conveyed by this lease, and which we have represented as non-mineral in character," and you have stated that that referred to the lands marked in brown on this map, or the south half of Township 30 South, Range 24 East. Now, I also asked you yesterday respecting government's Exhibit TT, which was a letter addressed to Mr. W. D. Cornish, vice-president of the Southern Pacific Company, dated September 3, 1904, respecting the follow-

ing language in this exhibit: "I can stave off the delivery of this document for some time yet, I think, for the reason that if the knowledge of this lease becomes public property it will probably cause us a great deal of trouble in the United States Land Office, and may result in the loss of a large body of adjacent lands which may hereafter turn out to be mineral and oil-bearing." What did you refer to in that letter when you spoke of the "large body of adjacent lands which may hereafter turn out to be mineral and oil-bearing"?

A. I undoubtedly referred to lands in 30 South, 23 East.

Q. Mount Diablo Meridian?

A. Yes, and those south of it.

Q. And the lands south of those lands, in 31-23?

A. Yes sir.

Q. And 31-24, which were unsurveyed?

A. Yes; they were unsurveyed at that time. [815]

Q. And the lands which you have designated as in Township 30 South, Range 23 East, were lands which had then been selected by the Southern Pacific Railroad Company, but which had not yet been patented? Is that correct?

A. That is correct.

Q. Mr. Eberlein, referring to the exhibits which constitute certain correspondence between the officials of the Southern Pacific Railroad Company defendant and Southern Pacific Company defendant, and which yesterday you have stated were kept in a file, where was that file kept before the fire?

A. This particular file, do you refer to?

Q. Yes. The file referred to containing these papers.

A. That was not kept in the files at all. Part of the time it was kept in the safe-deposit vaults; at other times when it was needed it was brought into the office and kept in a separate place in the vault; in the safe, I think.

Q. What was the purpose of keeping that file separate from other correspondence?

A. Because it referred to that attempted lease.

Q. At the time of the fire where were the papers?

A. These papers at that time were in the safe in the vault of the company.

Q. And is that where they were discovered after the fire?

A. After the fire they were taken out of there.

Q. Now, in what respect was this attempted lease an excuse to separate these papers from the other papers in the general course of business kept in the vault of the Land Department?

A. I did not propose that it should be common property at all. There was no lease, because I had refused to sign it. I had given instructions to the assistants there—the chief clerks—that they were not to recognize that lease in any way. [816]

Q. What was the purpose of keeping the files separate from the rest of the correspondence?

A. Because they referred to that lease. They referred to that lease and they referred to the action taken by the land agent in not recognizing that lease.

Q. And for that reason did you think it was necessary to keep the papers separate?

A. I certainly did. They should not be scattered all through the files, with references to that lease as a lease, and the first thing you know somebody would slide in a voucher to be approved under that lease, and that would be a recognition of it or would be supposed to be—or held to be.

Q. I show you this paper, Mr. Eberlein. Will you state what that is?

A. That is a map of part of the indemnity limits of the Southern Pacific grant lying in Townships 30, 31 and 32 South, Ranges 22, 23 and 24 East, Mount Diablo Meridian.

Q. Please state what these lands marked in red were?

A. Those are, as appears from that legend, a part of the lands in the lease that was intended to be made from the Southern Pacific Railroad Company to the Kern Trading and Oil Company.

Q. Does the legend correctly designate the character of the lands on the map?

A. The character, do you mean, as to patent and survey?

Q. Yes.

A. I believe it does. It was made up from the records at that time.

Q. I notice the initials "G. A. S." and "J. R. D."

A. This was made up by Mr. Stone and checked by him and J. R. Daly who was then a clerk.

Q. Will you tell me whose handwriting those initials are? [817]

A. That is Stone's handwriting, "G. A. S.", and that is Daly's, "J. R. D."

Q. Who prepared this map, to the best of your recollection?

A. Who did the actual manual work—I can't tell you that. I was not in the department much of the time. It was prepared by Mr. Stone.

Mr. Mills—We offer this map in evidence.

Mr. Lewers—Objected to on the ground that no sufficient foundation is laid; it is not properly identified by any person who made it, and it is purely hearsay.

Mr. Mills—I believe the witness stated he did most of the manual work on the map.

A. That I did?

Q. Yes.

A. No; I am not an artist; I didn't do it.

Q. It doesn't look as though an artist did that coloring.

A. No; it looks as if a house-painter did.

Q. Do you know whether that was made under your direction?

A. I don't remember. It probably was. It was probably made under Mr. Stone—I issued the order for it, I suppose, and told him I wanted to see it platted out.

Mr. Lewers—I move to strike that out as a supposition of the witness.

Q. By Mr. Mills—What was the date?

A. September 16, 1904.

Q. Where did you get this map after the fire?

A. I got it with the lease. It was right with it, a copy of it.

The map last referred to and offered in evidence is marked "Plaintiff's Exhibit UU—L. L." [818]

Q. Mr. Eberlein, you have stated in the first part of your examination that as part of the duties and functions of George A. Stone, he was empowered to sign leases for the railroad company of certain lands?

A. Yes sir.

Q. Do you know whether any lease was ever executed by the Southern Pacific Railroad Company and one Brewton A. Hayne and Sally P. Hayne, his wife, and George D. Roberts and Julia A. Roberts, his wife, and the Zier Oil Company, during the time that you were acting land agent for the defendant railroad company?

A. The Hayne lease was in existence when I came there, as I recollect it. There was a great deal of negotiation with Hayne. He was in default, and I think some extensions or some modifying instrument was executed while I was there.

Q. I call your attention to this paper which I have in my hand which purports to be a lease between the Southern Pacific Railroad Company and the Haynes, Roberts and Zier Oil Company, dated some time in 1906. Will you please look at the signatures and state whether that is the lease you referred to?

A. This, I believe—I have not examined it thoroughly—I believe this is a sub-lease or some modifica-

tion of the original lease. The original lease to Hayne, I can't say the number of it—there it is—G-45, and bore date 19th of January, 1901, and then he was permitted, as I understand this, to—

Mr. Lewers—I object to any interpretation of the document. The document is the best evidence.

A. Well, we will just say that this is a sub-lease.

Mr. Mills—We offer this instrument which is a certified copy of an instrument on file in the county recorder's office of Fresno county, California, purporting to show that the Southern Pacific Railroad Company by Charles W. Eberlein, its [819] acting land agent, by George A. Stone, assistant acting land agent, leased certain property in Fresno county to the parties named in the lease.

Mr. Lewers—May I inquire the office of this? Do you want to bring the county recorder of Kern county into this conspiracy?

Mr. Mills—Your attempted wit is getting exceedingly cumbersome, Mr. Lewers.

Mr. Lewers—Then you have no purpose in offering it?

Mr. Mills—No such purpose as that.

Mr. Lewers—We object to the document on the ground that it is subsequent to the time of the patent involved in this case, and on the further ground that it appears to concern property a long distance or a great distance from the land in controversy in this case, and on the general ground that it is irrelevant to any issue in this case.

Mr. Mills—I will state here for the benefit of coun-

sel that the purpose of introducing this is to show that Mr. George A. Stone was empowered to sign leases.

The certified copy of lease last referred to and offered in evidence is marked "Plaintiff's Exhibit VV—L. L."

Mr. Mills—We offer in evidence a certified copy of the articles of incorporation and consolidation of the Southern Pacific Railroad Company.

Mr. Lewers—No objection to that.

The certified copy of articles of incorporation and consolidation of the Southern Pacific Railroad Company last referred to and offered in evidence is marked "Plaintiff's Exhibit WW—L. L." [820]

Q. By Mr. Mills—Mr. Eberlein, the lands in this suit are known as a portion of Section 15, 17, all of 19, 21, 23, 25, 27, 29, 33 and 35 of Township 30 South, Range 23 East. Do you remember the circumstances connected with the selection of those lands in the indemnity limits of the Main Line Grant?

A. Yes sir.

Q. Will you please state what those circumstances were?

A. When I took charge of the affairs of the land department of the Southern Pacific, I found there was a large amount of base unused, which I instructed my assistants to prepare a list and make indemnity selection for.

Q. What year was that?

A. 1903, I think in the month of August; and the list was made up by Mr. Stone.

Q. Permit to interrupt you long enough to ask you how long you had been there in the capacity of land agent at that time?

A. Less than a month, I think. It was in August—yes, it was in August, 1903, that that list was made up.

Q. Did you send anybody out over the lands to examine them and ascertain their character at that time?

A. No sir; it was not necessary.

Q. On whose judgment did you rely as to the character of the land?

A. On Mr. Stone's.

Q. George A. Stone?

A. George A. Stone had been for years the field examiner of the Southern Pacific Railroad Land Department. He was thoroughly familiar with the land, so he told me.

Q. He made no special trip on that occasion?

A. Not on that occasion.

Q. To ascertain the mineral or agricultural character of [821] the land?

A. No.

Q. Did you know anything about the lands yourself?

A. Nothing.

Q. Did you have any personal knowledge whatever?

A. Absolutely none.

Q. Had you ever seen the land?

A. Never.

Q. That, you say, was in 1903. In 1904 you wrote a letter to Mr. C. H. Markham which has been introduced here as government's Exhibit KK, in which you used the following language: "In addition to this there is a very urgent reason for delaying the execution of these papers." By those papers you meant the attempted lease that you have referred to?

A. Yes.

Q. "We have selected a large body of lands interspersed with the lands sought to be conveyed by this lease, and which we have represented as non-mineral in character." By that did you refer to the lands in suit?

A. Yes sir.

Q. "Should the existence of this lease become known it would go a long way toward establishing the mineral character of the lands referred to, and which are still unpatented." What lands did you refer to?

A. The lands in 30 South, 23 East.

Q. "We could not successfully resist a mineral filing after we have practically established the mineral character of the land. I would suggest delay at least until this matter of patent can be adjusted." You have spoken of E. T. Dumble. On the date of this letter, Mr. Eberlein, which is September 10, 1904, had you obtained any knowledge as to Mr. Dumble's activities with reference to the unpatented lands inuring to [822] the Southern Pacific Railroad Company under its grant of July 27, 1866?

A. I became aware when that lease was sprung

on me that he had been—that he made examinations, yes. That was my first knowledge of it.

Q. Was that the first time you suspected that these lands might turn out to be mineral in character or might be mineral in character?

A. I did not suspect them of being mineral in character at the time I made that non-mineral affidavit.

Q. I am talking about the time when you wrote Mr. Markham and also when you wrote Mr. Cornish under date September 3, 1904, in which you used this language, in the first letter: "We have selected a large body of lands interspersed with the lands sought to be conveyed by this lease, and which we have represented as non-mineral in character" and later "Should the existence of this lease become known it would go a long way toward establishing the mineral character of the lands referred to, and which are still unpatented." Did that lease raise anything in your mind?

A. It certainly did.

Q. What was it?

A. It put me on inquiry as to why those lands were attempted to be conveyed by that lease. They were attempting to convey lands supposedly non-mineral to an oil development company.

Q. And by that company you refer to what?

A. The Kern Trading and Oil Company. Now, they may have been sought to be transferred for some other purpose than oil, but the inference was pretty

strong, and I felt and I knew certainly that it would work against the company.

Q. At that time had you learned that Mr. Dumble was acting without your knowledge and not in conjunction with your depart-[823]-ment as to the examination of these lands?

A. That is true.

Q. Did you ever make any protest to any of the officials of either company, the Southern Pacific Company or the Southern Pacific Railroad Company, against the practice of Mr. Dumble and his men examining lands not yet patented to the railroad company?

A. He was acting without any conjunction or any understanding with me. I didn't know the character of the land that he examined, and I did protest and protested vigorously.

Q. To whom did you protest?

A. To my chief in New York.

Q. Who was your chief?

A. Mr. Cornish.

Q. W. D. Cornish?

A. Yes.

Q. He was vice-president of the Southern Pacific Company?

A. Yes.

Q. Was he your chief as land agent of the Southern Pacific Railroad Company?

A. Yes.

Q. How do you explain that, Mr. Eberlein?

A. I can't explain it, except that it is a fact.

Q. Was Mr. Cornish to your knowledge an officer of the Southern Pacific Railroad Company as well?

A. I do not know that fact. I suspect he was, but I have not—I can't testify as to that off-hand now.

Q. Well, you made protest to him against this activity of Mr. Dumble and his men. That letter which I have asked you about—government's Exhibit TT—was that the protest that you sent him?

A. Oh, no. I protested in conversation with him frequently.

Q. When? [824]

A. At different times from that time on; just as long as I was there. And also I had talks with Mr. Markham about it at the time this lease was attempted to be made.

Q. C. H. Markham?

A. Yes sir.

Q. The gentleman who is the addressee in government's Exhibit KK, general manager, Southern Pacific Company, dated September 10, 1904?

A. Yes sir.

Q. What talk did you have with Mr. Markham?

Mr. Lewers—We object on the ground that it is calling for hearsay testimony.

Mr. Mills—I think the record will show that it is quite pertinent, conversations between the head of the Land Department of the Southern Pacific Railroad Company and the general manager of the Southern Pacific Company.

A. I just pointed out to Mr. Markham that people acting without any kind of knowledge of what they

were doing, without any reference to the selection list of the company, without any reference to whether the lands were patented or even surveyed,—that it was charging the company with notice. It didn't charge me with notice, but it certainly would be the grounds on which to get in and protest the patents or protest the lists, and so the fact turned out to be.

Q. Did you have more than one conversation with Mr. Markham with respect to that protest?

A. Yes; I think we talked about it a number of times, my recollection is.

Q. Did you continue those protests from time to time until a later period?

A. Oh, yes; clear up to the last, I think.

Q. The letter dated September 10, 1904, addressed to Mr. Markham, [825] in which it appears that you made a protest, and called government's Exhibit KK, was that the first protest you made to him or was it subsequent to any conversation?

A. Oh, Mr. Markham and I had several rather heated arguments, and I objected to Mr. Markham's interference with the Land Department. I was not under his orders at all.

Q. Do you know Mr. Henry Conlin?

A. Yes.

Q. Who was Mr. Conlin?

A. Mr. Conlin was a clerk in the department from 1905, some time, and afterwards my assistant, and succeeded me as acting land agent.

Q. During the time he was your assistant did Mr. Conlin have the same powers and functions during

your absence that you would have, except where your appointment was limited to your personal acts?

A. Yes sir; he covered everything. He had to have very full authority, because I was absent in New York a very large part of the time.

Q. Were you acting land agent as late as February 22, 1908?

A. Yes sir; till June 1, 1908.

Q. I show you this paper, Mr. Eberlein, and ask you when you first—I will ask you, in the first place, if that is in your handwriting. You may read it through.

A. Yes sir; that is my letter.

Q. What is the date of that letter?

A. February 22, 1908.

Q. Do you know whether this letter was transmitted to Mr. Conlin by you?

A. I think it was. I have never seen it since it was written, but I must have sent it.

Mr. Mills—With the statement that we will call Mr. Conlin [826] to show what became of the letter after it left Mr. Eberlein's hands, we will offer it in evidence.

Mr. Lewers—We object on the ground that it is long subsequent to the issuance of the patent in this case and not shown to have any connection with the lands in controversy. On the further ground, that no sufficient foundation has been laid for its introduction.

Mr. Mills—I will read this into the record. "Feb. 22, 1908. Mr. Conlin—The New York Office has for-

bidden the giving out of any more printed lists of lands because of the unsatisfactory condition of our titles which must not be disclosed. The examination of our S. P. lands not yet patented by our oil experts must be stopped as information that they may obtain or give as to mineral character prior to patent will forever prevent our getting titles. Should Mr. Calvin call for any lists please take this memo. to him and explain our situation and refer him direct to New York office. Please advise him too of the pressing necessity of the return of lists sent in a year ago for entry of lands to be reserved for company purposes. Mr. Dumble and his men should not be furnished by us with any data whatever except as to *patented* lands. For reasons above given such information will be embarrassing to them and us and may make them witnesses against this company in mineral contests hereafter. (Signed) Chas. W. Eberlein, Acting Land Agent."

The letter last above referred to and offered in evidence is marked "Plaintiff's Exhibit XX—L. L."

Q. I ask you, Mr. Eberlein, where that letter was written?

A. Written in New York.

Q. What do you mean by the "New York office" used in this letter, or what did you mean? [827]

A. I meant the authority over land affairs which was vested there.

Q. And what authority was that?

A. Well, the authority of W. D. Cornish.

Q. Who at that time was vice-president of the Southern Pacific Company?

A. Yes sir.

Q. Now, did you understand and was it a fact that Mr. Cornish exercised authority over the land affairs in the Land Department of the Southern Pacific Railroad Company?

A. That was his duty—part of it.

Q. And how long and from what time to your knowledge did that exist?

A. From the summer of 1903 over these lands out here on the coast.

Q. Do you know whether or not those lands were ever shown in any balance sheet of either company as assets of either company?

A. Do you mean the value of granted lands?

Q. Yes; the lands themselves and the value of the granted lands.

Mr. Lewers—Objected to as calling for the conclusion of the witness on matters which in the very question itself it appears are best shown by the document itself, if there is such a document. And on the further ground that it is irrelevant to any issue in this case.

Q. By Mr. Mills—You may answer.

A. No.

Q. They were never carried on the balance sheet?

A. No; the value of the granted lands never appears in any balance sheet, only the collections from sales, leases, and actual collection of money. [828]

Q. Now, you refer in this letter to the fact that

the New York office has forbidden the giving out of any more printed lists of land. What were those printed lists?

A. A printed list was a complete classified list of all the lands, divided in this grant into hundred-and-sixty-acre tracts. That is, we had a printed list of all the granted lands of the company, classified by counties, into patented and unpatented selected lands, unpatented selected lands, unsurveyed lands and lands subject to contract. That is, sold lands under contract.

Q. You have stated in this letter that the New York office had forbidden "the giving out of any more printed lists of lands because of the unsatisfactory condition of our titles which must not be disclosed." By that what did you mean?

A. I meant after the fire we were completely cleaned out and had to make an entirely new set of books. We had to get our contracts for the sale of land, amounting to hundreds of thousands of dollars, that had been burned, and we had no evidence of them. We had to supply that by examinations in the Land Office, first, and in the county offices, and by every other means that we could take to supply that information; and in some cases it turned out that people took advantage of that fact, knowing that we were without any data at all regarding the lands that were sold under contract, and they altered the terms of their contracts in some cases.

Q. The sentence immediately following: "The examination of our S. P. Lands not yet patented by

our oil experts must be stopped as information that they may obtain or give as to mineral character prior to patent will forever prevent our getting titles." Was that statement a continuation by you of the accustomed protesting which you said started as soon as they offered the lease to you? [829]

A. Oh, yes; that is simply the same old thing, only we were suffering a great deal more from the activity of Mr. Dumble at that time—his interference almost every day.

Q. "Should Mr. Calvin call for any lists please take this memo to him and explain our situation." Who was Mr. Calvin?

A. Vice-president and general manager of the Southern Pacific Company.

Q. And he was calling for lists of land of the Southern Pacific Railroad Company?

A. Yes.

Q. Some lists had been furnished him prior to that time?

A. Yes sir.

Q. You say "Please advise him too of the pressing necessity of the return of lists sent him a year ago."

A. They had been furnished him for the purpose of having him note what lands should be reserved. At the time of the fire the records were completely destroyed. There were lands that were reserved for operating purposes. That is what it was sent to him for, so as to renew that data. It so happened that in a great many cases lands were reserved on our

books from sale or any disposition—lands which were needed for the extension of yards or for water or for a number of purposes, either present or prospective, for operation or traffic.

Q. I call your attention to this statement: “Mr. Dumble and his men should not be furnished by us with any data whatever except as to patented lands.” The word “patented” is underscored. What did you underscore the word “patented” for?

A. That is axiomatic in this connection. Mr. Dumble should certainly have nothing to do with any lands except such as were patented. If he did, it was simply—we had no control over Dumble and didn’t know what he was doing and no means of finding what he was doing. [830]

Q. Did Mr. Dumble ever come to you in 1903 or ’04 and give you information as to the mineral character of any lands?

A. No sir; I didn’t know Mr. Dumble in 1903.

Q. You have referred to this attempted lease, Mr. Eberlein, which is dated the 2nd day of August, 1904. I will ask you if that is the original attempted lease which was offered to you by Mr. Markham as you have stated?

A. Yes sir; that is the original.

Q. I notice that it is in a bad state of preservation.

A. That was baked in the fire of 1906 and happened to be in the vault at that time.

Q. Was that lease in the file that you referred to?

A. Yes; it was kept with those papers.

Q. Will you read, please, whether there are any signatures there and state whose they are if you know them?

A. Kern Trading and Oil Company by C. H. Markham, president.

Q. Do you know whether Mr. Markham signed that attempted lease?

A. Yes sir.

Q. How do you know that fact?

A. He signed it in my presence.

Q. Now, I notice the words "Approved as to form (Signed) William F. Herrin." Are you acquainted with his signature?

A. Yes sir.

Q. Is that his signature?

A. Yes.

Q. "Description of property correct (Signed) E. T. Dumble." Do you know whose signature that is?

A. That is Mr. Dumble's signature.

Mr. Mills—I suggest that when we offer this in evidence we substitute a copy of this in evidence.
[831]

Mr. Lewers—Substitute a copy, but leave the original as an exhibit.

Mr. Mills—We offer that in evidence.

Mr. Lewers—We object to the introduction of the document offered in evidence, on the ground that no sufficient foundation has been laid to account for its production and its source, and that it is not relevant, as appears on the face thereof, to any of the issues

in this case, inasmuch as it does not concern any of the land involved in this litigation.

The lease last referred to and offered in evidence is marked "Plaintiff's Exhibit YY—L. L." And, a copy thereof is also marked "Plaintiff's Exhibit YY—L. L." and placed in the files of Exhibits with the Special Examiner, as follows:

"THIS INDENTURE, Made this 2nd day of August, 1904, by and between SOUTHERN PACIFIC RAILROAD COMPANY, a corporation consolidated and incorporated under the laws of the State of California and of the Territories of Arizona and New Mexico, and having its principal place of business in the City and County of San Francisco in said State, the party of the first part, and KERN TRADING AND OIL COMPANY, a corporation incorporated and existing under the laws of the State of California and having its principal place of business in the City and County of San Francisco in said State, the party of the second part.

WITNESSETH;

That the party of the first part, for and in consideration of the royalties hereinafter set forth to be paid by the said party of the second part to the said party of the first part, hereby grants unto the said party of the second part and to its successors and assigns, for the term of ten years from the first day of January, 1904, together with a privilege of an extension or [832] renewal of said term for the further period of ten years thereafter, *provided* that notice, in writing, of its intention to demand the same shall

be given by the party of the second part to the party of the first part prior to the expiration of said first term, the right to mine, excavate, bore, drill and sink for and otherwise collect and develop asphaltum, petroleum, natural gas, tar gypsum, coal or other valuable minerals, substances or products under or upon the lands and premises hereinafter described; also to remove and sell said minerals, substances and products so obtained therefrom; also to construct thereon, maintain, and use such buildings, fixtures and machinery as may from time to time be needed or convenient in carrying on said business and mining operations, and to occupy such portions of said premises as may be necessary or convenient for the same, or for use in connection therewith, and to construct and maintain over, across and along said premises such telephone lines, pipe lines, canals, ditches, roads and highways as may from time to time be needed or convenient, together with the right of way over and along said lands for the passage and conveyance of the said party of the second part, its agents and employees, supplies and machinery.

THE PARTY OF THE SECOND PART shall pay to the said party of the first part, as royalty for and during the term hereby granted, and for and during any extension or renewal thereof as hereinbefore provided for, the one-tenth part of the gross amount of all natural gas, petroleum, tar, gypsum, coal and other minerals, substances and products extracted or obtained from said lands and premises, or the one-tenth part of the gross amount of moneys received

from the sale of said minerals, substances and products.

ALL OF THE PRODUCTS or substances herein mentioned that may be produced on or from said lands, shall be collected by the party of the second part in such manner that the same may at all times during business hours be examined, measured or gauged by the [833] party of the first part, or its agents, without let or hindrance; and said party of the second part shall keep true and correct account of all said products or substances obtained, which account shall be subject to examination by the party of the first part, or its agents, at any and all times during business hours. And for the purpose of fixing the amount of royalty to be paid as aforesaid, the party of the second part shall, on or before the 10th day of each calendar month, furnish correct written statements to the Land Agent of the party of the first part of the full amount of any and all products or substances that may have been obtained or extracted on or from said land by it during the preceding calendar month, and the delivery of said minerals and substances, or payment therefor as royalty as aforesaid, shall be made on or before the 15th day of each calendar month.

IF THE PARTY OF THE SECOND PART shall at any time construct any pipe lines for the transportation of gas, petroleum, or other products or substances from said land to any shipping point, the party of the first part shall have the right or option of transporting its share of said gas, petro-

leum or other products or substances through said lines at the actual cost of such transportation.

AND IT IS HEREBY AGREED that if any royalty shall be unpaid for sixty days after the same shall become due and payable, or if default shall be made in any of the covenants herein contained, all rights of the party of the second part in and upon said premises shall, at the option of the party of the first part, cease and determine.

IT IS UNDERSTOOD AND AGREED by and between the parties hereto that the party of the first part its officers and agents shall have the right to go in and upon any portion of said lands and premises occupied by the party of the second part, during said term or any renewal or extension thereof, to inspect the work done or [834] the progress thereof on said lands, and the products and minerals obtained therefrom, and to fix any notices on the said lands that it may deem fit and proper.

THE PARTY OF THE SECOND PART shall have the right to take for its own use and benefit any oil, water or dry asphaltum discovered upon said premises, for fuel, mechanical and domestic uses necessary in the development of said lands, and no royalty shall be chargeable thereon.

The party of the second part furthermore agrees to pay, without suffering them to become delinquent, all taxes and assessments whatever which during the term of this lease may be charged, assessed, levied or imposed upon any improvements placed by said second party upon said lands and premises.

THE PARTY OF THE SECOND PART hereby further agrees that it will not permit or suffer any mechanics', materialmen's, laborers' or other liens of any kind or nature to attach against said lands and premises for any work that shall be done or materials that shall be furnished thereon at the instance or request of said party of the second part.

AND IT IS EXPRESSLY AGREED THAT all mineral and other products, goods, wares or merchandise shipped from said premises by rail by the party of the second part shall be forwarded over the railroad lines of the party of the first part and of the Southern Pacific Company of Kentucky, the lessee of said lines, the leasehold estate of which company in said lines is hereby acknowledged; and also that the choice of routes over which all freight so shipped from said premises shall be forwarded when consigned or destined to a point beyond the line or lines of railroad of the said party of the first part or the said Southern Pacific Company, shall be fixed and determined by said Southern Pacific Company; provided, however, that the rate of charge to be made thereon shall not exceed the rates at the time in force [835] on other rail routes.

IT IS MUTUALLY UNDERSTOOD AND AGREED by the parties hereto that all of the terms, covenants, conditions and obligations in this instrument contained shall also be binding upon the successors and assigns of the parties hereto.

NOTHING in this instrument contained shall be construed so as to limit the right of the party of the

first part to lease or convey to persons other than the party or parties of the second part the lands and premises above referred to, or any part thereof, subject to the rights and privileges therein granted to the party of the second part by this instrument, but every such lease or conveyance shall contain an express provision that the same is made subject to the rights of the party of the second part hereunder.

AND IT IS AGREED that at the expiration of the term aforesaid, or any renewal or extension thereof, or any sooner determination thereof, the said party of the second part will quit and surrender the said lands and premises in as good state and conditions as reasonable use thereof will permit, damages by the elements alone excepted.

THE LANDS AND PREMISES hereinbefore referred to are as follows:

ALL of those certain lands situate, lying and being in the County of Kern, State of California, known and described as follows, to-wit: [836]

KERN DISTRICT:

Township 29 S., R. 28 E.

NE $\frac{1}{4}$, NW $\frac{1}{4}$, N $\frac{1}{2}$ of SW $\frac{1}{4}$, and NW $\frac{1}{4}$ of SE $\frac{1}{4}$ of sec 3.

McKITTRICK DISTRICT:

Township 30 S., R. 21 E., Sec. 1.

Township 30 S., R. 22 E.,

Secs. 5, 7, 9, 11, 13, 15, 23, 25, 33;

N $\frac{1}{2}$ and SE $\frac{1}{4}$ of 21;

N $\frac{1}{2}$ and SE $\frac{1}{4}$ of 27;

N $\frac{1}{2}$ and SE $\frac{1}{4}$ of 35.

Township 30 S., R. 23 E., Sec. 31.

Township 31 S., R. 22 E.

NE $\frac{1}{4}$ of Sec 15;

NE $\frac{1}{4}$ of Sec 23;

NE $\frac{1}{4}$ of Sec 25.

Township 31 S., R. 23 E.

Secs 5, 9, 15, 21, 23, 25, 27, and 35;

E $\frac{1}{2}$ of Sec 7.

Township 31 S., R. 24 E., Secs 31 and 33.

MIDWAY AND SUNSET DISTRICTS:

Township 32 S., R. 23 E.

Secs 3, 11 and 13;

N $\frac{1}{2}$ of Sec 5.

Township 32 S., R. 24 E., Secs 3, 5, 11 and 13.

ALSO all of those certain lands situate, lying and being in the County of Fresno, State of California, known and described as follows, to-wit:

COALINGA DISTRICT:

Township 19 S., R. 15 E., Secs 27, 31, 33, 35, (including Leases on Sec. 31.)

Township 20 S., R. 14 E., Secs 1, 13, 23, and 25.
(Including leases on each)

Township 20 S., R. 15 E., Secs 3, 5, 7, 17 and 29,
(Including leases on Sec 7);

W $\frac{1}{2}$ sec 9;

N $\frac{1}{2}$ and SE $\frac{1}{4}$, Sec 19;

W $\frac{1}{2}$ sec 21;

N $\frac{1}{2}$ sec 31;

W $\frac{1}{2}$ and SE $\frac{1}{4}$ sec 33.

Township 21 S., R. 14 E., Sec. 25.

Township 21 S., R. 15 E.

Secs 1, 3, 11, 17, 19;

W $\frac{1}{2}$ sec 15;

W $\frac{1}{2}$ and NE $\frac{1}{4}$ sec 21. [837]

ALL OF THE RIGHTS hereby granted being nevertheless subject to any and all leases of and rights of way over any part or portion of said described premises heretofore made or granted by the party of the first part.

IN WITNESS WHEREOF, the parties hereto have caused their names and corporate seals to be hereto affixed, and these presents to be signed in duplicate on the part of the party of the first part by its Land Agent and Secretary, and upon the part of the party of the second part by its President and Secretary.

SOUTHERN PACIFIC RAILROAD
COMPANY

BY

.....
Land Agent.

AND

.....
Secretary.

KERN TRADING AND OIL COM-
PANY,

BY

(Signed) C. H. Markham,

.....
President.

AND

.....
Secretary.

Approved as to form.

(Signed) Wm. F. Herrin,

Chief Counsel.

Description of Property correct.

(Signed) E. T. Dumble. [838]

STATE OF CALIFORNIA,)

: ss.

City and County of San Francisco.)

On this.....day of....., in the year one thousand nine hundred and four, before me,..... a Notary Public in and for said City and County of San Francisco, State of California, personally appeared.....known to me to be the Land Agent, and.....known to me to be the Secretary of the SOUTHERN PACIFIC RAILROAD COMPANY, the corporation that executed the within instrument; and each of them acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at my office in the City and County of San Francisco, State of California, on the day and year above written.

.....
Notary Public in and for the City and County of San Francisco, State of California.

STATE OF CALIFORNIA,)

: ss.

City and County of San Francisco.)

On this.....day of....., in the year one thousand nine hundred and four, before me,..... a Notary Public in and for said City and County of San Francisco, State of California, personally appeared.....known to me to be the President, and.....known to me to be the Secretary of the SOUTHERN PACIFIC RAILROAD COMPANY, the corporation that executed the within instrument; and each of them acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at my office in the City and County of San Francisco, State of California, on the day and year above written.

.....
Notary Public in and for the City and County of San Francisco, State of California.” [839]

Q. By Mr. Mills—Was this attempted lease which I have shown you and which you identify as signed by Mr. Markham in your presence, the lease referred to by the various exhibits contained in the correspondence introduced yesterday and which were kept in that file?

A. Yes sir.

Q. You state that you saw Mr. Markham sign that at the time?

A. Yes sir.

Q. That is, on August 2nd?

A. The 2nd of August.

Q. Was that the time when you first understood that the execution of that lease, if it became known, would cause trouble in the land department, as referred to in this correspondence? Was that the first time you knew about it?

A. Yes; I was taken by surprise.

Q. Did you have any extended conversation with Mr. Markham at that time?

A. Only a few minutes; I was leaving the city that day.

Q. Will you state the substance of your first conversation after you read the lease and understood its purport?

A. I didn't read the lease fully at that time. I went to Mr. Markham's office. He sent for me and when I came in he had this document and merely said, "We are making a lease of certain lands in the Southern Pacific grant and transferring the oil leases to the Kern Trading and Oil Company" and he signed it right then. My recollection is that I merely glanced at some of the descriptions there and told him that I would have to look into that before I signed it, and I declined to sign it at that time. It was sent to my office during my absence.

Q. You left that day for Denver, did you not?

A. Yes. [840]

Q. That was on August 2nd?

A. August 2nd.

Q. After you arrived at Denver, did you get a

telegram from your assistant, Mr. George A. Stone, with reference to that attempted lease?

A. Yes.

Q. And is government's Exhibit FF a copy of that telegram?

A. Yes sir.

Q. I refer you to government's Exhibit GG.

A. That is my reply to it.

Q. Did you ever make any reply to Mr. Cornish as part of your duties as acting land agent as to the state of affairs in the land department?

A. Oh yes; frequently.

Q. What was the nature of those reports? What did you report on?

A. Everything. Very often he would call for specific reports.

Q. Did you ever have occasion to have knowledge that these reports were returned to other parties in San Francisco?

A. How is that?

Q. That any of your reports were returned to other parties in San Francisco. That is, other officials of the road?

A. Yes sir: I have known such things to be done.

Q. Reports that you sent to Mr. Cornish were sent back to other parties who were officials of the Southern Pacific Company?

A. Yes sir; I have known that to be done.

Q. Who were some of the officials that received those reports which you intended for Mr. Cornish?

A. I remember one case in which William F. Her-

rin turned [841] up with one of my confidential reports.

Q. Which had been written to Mr. Cornish?

A. On his order.

Q. Do you know what the nature of that report was?

A. I believe that that report that you are asking about—I don't know that you know excepting as to the general fact which I have testified to.

Q. That is all—

A. —had nothing to do with the Land Department proper.

Q. Mr. Eberlein, on August 2nd when you were in conference with Mr. Markham as to this attempted lease, you have stated that you declined to sign it?

A. Yes sir.

Q. Had you known anything about the Kern Trading and Oil Company before that?

A. Nothing.

Q. And you knew nothing about its purposes and organization?

A. Not a thing.

Q. Will you state why you declined to sign that lease when Mr. Markham offered it to you?

A. Because I saw in there the attempt to dispose of and convey lands that lie right in the region in which some of our selection lists—at least one of the selection lists—had been made.

Q. Are you referring to the body of lands in 30-23?

A. Yes, I am. And those lands were not patented at that time.

Q. Did you inform Mr. Markham of that fact?

A. I may not have informed him at that time, but I informed him that I would take time to look into that lease.

Q. Why was it the fact that those lands lie right there [842] became important to you on August 2nd when he attempted to have you sign that lease?

A. I had made a non-mineral affidavit depending on the knowledge of my assistant who was a field man. I also had the direct backing of the government in making that non-mineral affidavit. That list of lands was made on my order, on the representation to me that it was non-mineral, by my assistant, who was fully informed.

Q. Your assistant, George A. Stone?

A. Yes.

Q. Before we get to that, did you communicate to Mr. Markham any of these facts at that time in that conversation?

A. Maybe not at that conversation, but I did in conversations later.

Q. And within the next few days or months?

A. Oh, within the next few months. The matter was up frequently. I was pressed to sign that lease over and over again.

Q. Do you know whether or not, Mr. Eberlein, any lease of lands belonging to the Southern Pacific Company was made to the Kern Trading and Oil Company during the time you were acting land

agent—any that was ever treated as a valid lease by the Kern Trading and Oil Company and officials of the Southern Pacific Company?

A. Yes.

Q. Is it a fact?

A. Yes; it is a fact.

Q. Why was it necessary for you to sign the lease?

A. Because that was a part of the duties as laid down and prescribed by the board of directors of the Southern Pacific Railroad Company.

Q. In your appointment? [843]

A. Yes.

Q. The resolution appointing you?

A. The acting land agent has been the responsible land officer of the road always, and up to that time he had always signed leases. In this case I was to take the responsibility for the railroad company myself. The president was not to sign it. The secretary was to sign, merely attesting the signature. But I was to be the goat, and I passed it.

Q. When did you first learn that a lease had been executed by any officials of the Kern Trading and Oil Company or of the Southern Pacific Company, acting for the Southern Pacific Railroad Company, or any lease which was treated as valid, without your signature?

A. This lease was spread by the auditor on his books, and treated as a lease without my signature.

Q. This very lease?

A. That very lease.

Q. The lease which has been introduced in evidence here?

A. Yes sir.

Q. By what auditor?

A. C. B. Seger, who was then auditor.

Q. When did you first learn that?

A. During the fall of 1904. Because we were importuned all the time to sign vouchers paying for pipage charges on that royalty oil of these different leases that were assigned or ever acknowledged at any time while I was in office.

Q. Those piping charges were obligations on whom to pay?

A. They were obligations on the Southern Pacific Railroad Company to pay.

Q. Under some lease which had been spread on the books of the auditor of the Southern Pacific Company?

A. Yes sir. [844]

Q. Had you ever seen that lease spread on the books?

A. No sir.

Q. Do you know whether in any way it departs from the form or description of the property contained in the leases already in evidence in this case?

A. I can only speak of the fact that the Land Accounts Bureau, in the auditor's office, acted upon it, and called on us for acts periodically which would give the right to charge the Southern Pacific Railroad Company with charges arising under the terms of that lease.

Q. Do you know specifically whether that lease which you have stated was spread on the books of the auditor of the Southern Pacific Company, contained other lands than the lands which are in this lease which is already in evidence?

A. I can't testify as to that.

Q. You don't know as a matter of fact whether it has additional lands or not?

A. No sir.

Q. Do you know whether that lease specifically contained the lands in this suit,—the lease which you have referred to as being spread on the books?

A. No sir. I have been informed that it did, but that is all.

Q. By Mr. Shoup—The lease that you are referring to and Mr. Eberlein is referring to is the lease to the K. T. O.? The attempted lease?

A. I understand that I am testifying about this lease without my signature.

Q. The attempted lease to the K. T. & O.

A. Yes sir.

Mr. Lewers—I move that his answer be stricken out as purely hearsay, that it does refer to this land, and as not the [845] best evidence.

Q. By Mr. Mills—When were you informed of that, Mr. Eberlein, that it does contain the land in this suit?

A. In the fall of 1904—no; I will qualify that. The information brought to me through the Land Accounts Bureau was that that lease, of which this is

all there is—right here—that that lease they were acting upon and recognizing.

Q. When you say “that lease they were acting upon and recognizing”, what lease do you mean?

A. I mean this uncompleted instrument right here.

Q. Which has been introduced in evidence in this case?

A. Yes sir.

Q. And you were informed of that in the fall of 1904?

A. Yes sir.

Q. About what month in the year 1904?

A. I can't testify as to that.

Q. Was it prior to November or October?

A. It was probably late in the year when these documents began to come in for our signature. Just what month, I can't pretend to tell you.

Q. I show you this paper, Mr. Eberlein, and ask you what it is, if you know?

A. That is a copy of a letter from Mr. E. E. Calvin addressed to myself, C. B. Seger and E. T. Dumble, jointly.

Q. Where is the paper from which that was copied—the original letter?

A. I don't know. This must be the copy that Mr. Calvin sent direct. It is dated September 26, 1907.

Q. This is the original, then?

A. Yes, so far as we are concerned.

Mr. Mills—We offer this in evidence.

Mr. Lewers—No objection. [846]

The letter last referred to and offered in evidence is marked "Plaintiff's Exhibit ZZ—L. L."

Mr. Mills—I will read this into the record:

"V-20-30-22

COPY

SOUTHERN PACIFIC COMPANY

December 26th, 1907.

Mr. C. W. Eberlein,

Acting Land Agent, Building,

Mr. C. B. Seger,

Auditor, Building.

Mr. E. T. Dumble,

Consulting Geologist, Building.

Dear Sir:

You will remember our inability to locate original or copy of lease to the Kern Trading & Oil Co. of lands in Kern River, McKittrick, Midway, Sunset and Coalinga Districts. As it is evident that all record of this document was lost in the fire, I have prepared substitutes and enclose for your files and information one copy of each lease from S. P. Co. to Kern Trading & Oil Co. covering above districts.

Yours truly,

(Sgd.) E. E. Calvin."

Q. Mr. Eberlein, this letter says, "As it is evident that all record of this document was lost in the fire, I have prepared substitutes and enclose for your files and information one copy of each lease from S. P. Co. to Kern Trading & Oil Co." Was that "S. P. Co." the Southern Pacific Company or the Southern Pacific Railroad Company?

A. He may refer there to a list of lands of the Southern Pacific Company.

Q. What is your recollection whether the substitute was [847] enclosed in this letter at the time?

A. I think there was a document enclosed.

Q. Do you recollect now whether it was in form and description the same as this lease or some other lease?

Mr. Lewers—To which we object on the ground that it is calling for secondary evidence concerning a document, and the document is the best evidence.

Mr. Mills—I want to fix in the record what is referred to.

A. All I can say is it was not recognized.

Q. The lease in evidence was never recognized by your department?

A. Nor was that that he refers to there.

Q. Never recognized by you?

A. No sir; not by me.

Mr. Mills—You may cross-examine.

A. There is one thing more, Mr. Mills. In the testimony of Mr. Stone yesterday, the imputation is left there in some way that E. T. Dumble inspired the making of that list. I want to go on record here to the fact that he did not, so far as I know. I did not know the man at that time.

Mr. Shoup—We intend to ask you about that.

A. All right.

Q. By Mr. Mills—In 1903 you didn't know him?

A. Yes sir. I didn't know him at that time.

Mr. Lewers—We expect to go very fully into that.

Whereupon the further taking of testimony herein was adjourned, to be resumed on June 1, 1912, at 10 o'clock A.M.

On Monday, July 1, 1912, at two o'clock P.M., at San Francisco, California, in the Federal Building, the further taking of testimony herein was resumed pursuant to stipulation [848] and agreement of counsel:

Mr. Mills—I want to ask Mr. Eberlein a few questions before I turn him over for cross-examination.

Mr. Lewers—At this time I would like to have the balance of the papers produced by Mr. Eberlein under the subpoena, a portion of which you have used in evidence, in order that I may examine them for the purposes of his cross-examination and for use in connection with it if I am so advised.

Mr. Mills—I will state that before we finish the direct examination we will produce all of the papers which were produced by the witness in response to the subpoena, excepting those with reference to which it would be necessary to lay the foundation which would properly entitle you to produce secondary evidence.

Mr. Lewers—Do I understand you will not permit me to examine papers which you have in your possession?

Mr. Mills—I don't know what you understand; I would like to make myself as clear as possible.

Mr. Lewers—As I understand, you will produce a portion of those papers and introduce them in evidence and you will retain the balance. Now, what

you may be advised so far as the introduction of your testimony is concerned is of course up to you to determine; but what we want is the opportunity to examine these papers, and to use them in connection with the cross-examination if they have any bearing upon it, in order that this matter may be gone into entirely. And at this time I will state that before we get through this entire matter will be gone into and all matters of correspondence and documents and papers will be gone into, and we are perfectly willing to state, and desire to make this as emphatic as possible, that you may have anything and everything in our possession or that we can get that bears upon this in any [849] shape or form, provided you will extend to us the same favor as to papers which you may have in your possession or control that have any bearing upon this case. And I will state that by that I do not mean merely the balance of the papers produced by Mr. Eberlein; I mean other papers you have in your possession and control.

Mr. Mills—If I have any papers that you think will be of benefit to your case of which I am not now advised, you ought to know how to get them.

Mr. Lewers—I know that I cannot get them, because you claim privilege. You know perfectly well you are in a position where the government officials can claim privilege and prevent us getting certain documents which have a bearing on this case, or with reference to which we believe they will have a bearing upon it. On the other hand any document we have that you are so advised with reference to, you

can compel us to produce. But we are willing to relieve you of the necessity of doing anything of that kind if you will equally extend to us the courtesy of permitting us to see everything that you have.

Mr. Mills—Now, if you will specify what you want, I assure you you will be given it. If we have anything of value to you we will give it to you. At present I know of nothing.

Mr. Lewers—That is, you will be willing to produce anything we may specify that we think has a bearing on this case?

Mr. Mills—I will produce anything I have that I think will help the Southern Pacific Company; but I have not anything that I regard in that light.

Mr. Lewers—That is, you reserve the right to determine it yourself?

Mr. Mills—Will you resume the stand, Mr. Eberlein? I want to ask Mr. Eberlein a few questions before turning him over [850] for cross-examination.

Whereupon, CHARLES W. EBERLEIN was recalled and direct examination resumed, as follows:

By Mr. Mills:

Q. On the concluding day of the testimony in chief, at page 1788 of the record of the reporter's transcript in this case, in response to a question by me: "Was that the first time you suspected that these lands might turn out to be mineral in character or might be mineral in character?" The copy of the transcript of your answer which was delivered to me reads: "I suspected them of being mineral in char-

acter at the time I made that non-mineral affidavit.” Is that a correct statement of your testimony?

A. No; that is clearly erroneous.

Q. Now, the reporter has since then furnished me a copy which reads as follows: “A—I did not suspect them of being mineral in character at the time I made that non-mineral affidavit”. Is that correct?

A. That is correct.

Mr. Mills—Let it so appear in the record, then, Mr. Examiner.

Mr. Lewers—That correction has already been made, has it not, Mr. Longley?

The Special Examiner—It has.

Q. By Mr. Mills—Referring to government’s Exhibit TT, which is a letter addressed to Hon. W. D. Cornish, vice-president of the Southern Pacific Company, dated September 3, 1904, signed Charles W. Eberlein, acting manager, and appearing in the reporter’s transcript at page 1773, I refer to this language: “This lease has been lying here for some time during my absence, and I may be called upon for it at any time. I would there-[851]-fore esteem it a great favor if you would give me any suggestion you may have by wire”. What lease did you refer to in that letter?

A. Well, no lease, but this attempted lease that has been produced.

Q. That is, the lease that has already been introduced in evidence in part executed by Mr. Markham?

A. Yes sir.

Q. “I can stave off the delivery of this document

for some time yet, I think for the reason that if the knowledge of this lease becomes public property it will probably cause us a great deal of trouble in the United States Land Office, and may result in the loss of a large body of adjacent lands which may hereafter turn out to be mineral and oil-bearing. I found on taking charge of this office that a large body of our lands, especially indemnity lands in the Coalinga, McKittrick and Sunset fields had been withdrawn by the United States from entry, pending examination as to their mineral character. I have worked very hard and very steadily to get the United States to complete its report and dispose of this matter. I have just succeeded in getting the special agent in charge to make a report releasing our land from interdiction. If it becomes known that we have executed a lease of lands interspersed with those already under selection by us and that the lease is for oil purposes, it seems to me that it will immediately encourage oil speculators to file upon the lands so selected and that the government will have good ground for refusing patent, inasmuch as we practically fix the mineral status of the land by this lease." Did you ever receive in writing a reply to that letter of which I have quoted a small excerpt?

A. No sir. [852]

Q. Now, that was early in September, 1904. Did you have any occasion during that fall of 1904 to go to New York for a conference with Mr. Cornish, the addressee in that letter?

A. Yes. I was there late in the fall or early winter.

Q. Of 1904?

A. 1904.

Q. And did you have any conference with Mr. Cornish about the subject matter of that letter?

A. Yes sir.

Q. Now, will you relate, as nearly as you can recollect, what the substance of the conversation was with Mr. Cornish with respect to what I have read from that letter, Mr. Eberlein? Before entering upon that, may I ask you whether you took with you at that time this attempted lease which has been introduced in evidence and such correspondence as has also been introduced?

A. Yes sir.

Q. Saved by you from the conflagration of 1906?

A. Yes sir. This matter was taken up by Judge Cornish and myself and discussed at that time.

Q. Did you talk over that phase of the letter, specifically, which reads as follows: "If it becomes known that we have executed a lease of lands interspersed with those already under selection by us, and that the lease is for oil purposes, it seems to me that it will immediately encourage oil speculators to file upon the lands so selected and that the government will have good ground for refusing patent, inasmuch as we practically fix the mineral status of the land by this lease."

A. Yes; we discussed all phases of the matter,

and agreed as to the impropriety of a lease at that time.

Mr. Lewers—I move that that be stricken out and that the substance of the conversation be given—not the conclusion.

Q. By Mr. Mills—The lands referred to by you in that [853] letter, I believe you stated once, were the lands in suit in Township 30 South, Range 23 East, Mount Diablo Meridian?

A. I understand now the lands in suit are the lands covered by that selection list 89.

Q. Yes sir.

A. Yes sir.

Q. And those were the specific lands to which you referred in your letter and in your conversation which occurred with Mr. Cornish?

A. Must have been.

Q. Now, state, as nearly as you can recollect, what conversation you had with Mr. Cornish about the execution of that lease?

A. We took this matter up with all the papers; looked them through, and I asked him what he wanted done with them, and he was very positive in his instruction that I was not to sign it or to recognize it. He considered it an improper lease to be made, having reference to the selection list of lands in the immediate neighborhood. He furthermore told me that I was to keep all those papers in my own possession, so that they might not be in the office where they might be considered as going where any-

one would have any knowledge of the document, so that it could not be acted upon in some way during my absence; that is, he particularly cautioned me against the approval of those vouchers, which were beginning to come in at that time for pipeage.

Q. Well, did he, at that time, instruct you positively to keep the papers which have been introduced, constituting the correspondence between yourself and other officials of these roads, and have them filed separately from the other files of the Land Department of the Southern Pacific Railroad Company?

A. His instruction was that I was to keep those to myself. [854] He said they might hereafter be necessary for my protection. They have been kept by me ever since.—And incidentally for his own protection.

Q. Did you and Mr. Cornish at that time recognize any trouble which might arise in the future from the making up there of those documents?

Mr. Lewers—To which we object, on the ground it calls for the conclusion of the witness, and it is leading and suggestive.

Mr. Mills—You may state it in your own way.

A. We naturally recognized at least the very ambiguous position in which we would be placed, both of us, by that lease, if that lease were made—and especially if I made the lease, I having also made the selection list which was at that time unapproved.

Q. That is, it had not gone to patent?

A. It had not gone to patent. It had been approved but not patented.

Q. And in support of that selection list referred to by you which has been introduced in evidence, you had made the usual non-mineral affidavit, testifying under oath that the lands, so far as you know, were non-mineral in character?

A. Yes sir.

Q. Now, did the fact that you had made that non-mineral affidavit, and the further fact that the lands were in process of administration in the Land Department of the United States, and no patent having issued, give you notice of the trouble which would ensue if you executed that lease?

Mr. Lewers—To which we object, on the ground it is leading and suggestive in the extreme. The witness is a very intelligent witness and is quite able to tell what took place and what was the purpose in his mind without being coached by [855] counsel.

A. I don't know as I understand that question exactly; but I simply state, as I have already stated, that the fact that I had made a non-mineral affidavit covering a large selection list, in perfect good faith, believing the fact to be as set forth in that non-mineral affidavit, it didn't seem good policy, to say the least, for me to turn around and make a lease of lands which were in juxtaposition to these same lands, and I believed, and Judge Cornish believed thoroughly, that it might give rise to trouble.

Q. By Mr. Mills—Now, what trouble would you expect from that, and what trouble did you have in mind?

A. Naturally would expect that if the lease was made at that time, with those lands mixed up as they were, or adjacent, that the government of the United States, having in mind that they were very active about that time in nosing into everything that affected railroad lands, would be very apt to call that lease at least in question, and make effort, at least—or hold it up or entirely knock it out.

Q. In other words, to completely preclude the possibility of the Southern Pacific Railroad Company acquiring title under that list?

A. Yes, very probably would.

Q. Now, you spoke of the juxtaposition of certain lands embraced in the lease referred to by you to those which were embraced in the selection list?

A. Yes sir.

Q. The lands which were in the lease and contemplated by the maps accompanying the lease were to be leased to the Kern Trading and Oil Company, as I understand it?

A. Yes sir.

Q. And those lands were interspersed with the lands which [856] were embraced in the selection list in support of which you made the non-mineral affidavit? Am I correct in that?

A. Yes sir. That is my understanding.

Q. Now, in your discussion with Mr. Cornish at

that time did he say anything to you about or caution you in any way about having your assistants instructed as to any recognition to be given to the lease?

A. Yes.

Q. Will you state what that was?

A. He gave me very particular instructions about having that known to just as few as possible in the office—thought it was best—and that they be instructed as to what to do in all cases; that they were not to act, but refer all questions to me that might arise, or to him.

Q. Now, the papers to which you have referred as having been the subject of that instruction were government's Exhibits EE, FF, GG, HH, II and so on down to ZZ?

A. No.

Q. Excepting what?

A. Only those that were in existence at the time of the conference.

Q. I say, excepting those which appear to have been written before that time?

A. After that time.

Q. But what I mean to say and what I meant to intend by the question, was that all of the papers referred to by Mr. Cornish are included in some of these exhibits?

A. Oh, yes; but only such as were in existence at the time of the conference.

Q. Was there any attempt, to your knowledge, subsequent to that conversation, to put through any

vouchers for piping charges by the Southern Pacific Railroad Company, or against [857] the Southern Pacific Railroad Company?

A. Yes sir.

Q. When, and under what circumstances?

A. Well, I believe they were rendered monthly.

Q. Yes. Explain the nature of those piping charges.

A. The lease, as I remember it, provides for the payment by the Southern Pacific Railroad Company, of the charge for pipeage of the royalty oil, and that was to be paid on voucher, and those vouchers were rendered by the auditor every month.

Q. When did you first receive notice of that?

A. I think in the fall of 1904. I can't fix the date, but it was in the year 1904 I am very sure.

Q. Did you ever recognize those vouchers in any way?

A. No sir.

Q. And solely because of your refusal to execute the lease?

A. My refusal to execute the lease and by order of my superior officer.

Q. Mr. Cornish at that time was vice-president of the Southern Pacific Company, with offices at 120 Broadway, New York, was he not?

A. Yes sir.

Q. What other office did he hold at that time?

A. Well, in my testimony I said that I didn't know whether he was connected with the Southern

Pacific Railroad Company. I have thought that ever since, and though I cannot fix it absolutely I believe that he was the president of the Southern Pacific Railroad Company at that time and up to the time of his death. That is subject to correction, but I believe that to be the fact.

Q. As well as the vice-president of the Southern Pacific Company? [858]

A. Yes.

Q. Now, you state that you had received no reply to the letter marked government's Exhibit TT, dated September 3, 1904, by Mr. Cornish. Did you at any time ask him why he did not reply to that letter?

A. No; I don't think I did. I talked to him about the letter.

Q. Did he give any reason for not replying to that letter?

A. No, he did not.

Q. You had asked for telegraphic reply, I see?

A. Yes.

Q. Now, subsequent to that conversation you returned to San Francisco. Did you take any action, under those instructions, as to the segregation of those papers?

A. Yes sir, I did. I kept them very carefully.

Q. And what did you do in that respect?

A. Well, I put them in a safe deposit vault.

Q. What safe deposit vault did you put them in?

A. California Safe Deposit & Trust Company.

They were kept there—taken in and out, but that was where I aimed to keep them. Kept them there for the protection of both the railroad company and myself. A part of them were in the office of the company at the time of the fire, in a private safe we had there. I think that my assistant had access to it, and I had access to it, and these carbonized remains are what were taken out of that safe.

Q. Who were your assistants at that time?

A. Mr. George A. Stone was assistant.

Q. When did Mr. Conlin become assistant?

A. Either late in 1906 or—probably not until 1907. I can't remember.

Q. The Mr. Stone you refer to is the Mr. George A. Stone who [859] testified in this case?

A. Yes sir.

Q. Do you know, Mr. Eberlein, what powers Mr. Stone had with reference to the land affairs of the Southern Pacific Railroad Company while acting as your assistant?

Mr. Lewers—Objected to as having been gone into very fully heretofore.

Mr. Mills—I expect to go into it more fully this time.

A. He had the powers testified to the other day; that is, he had powers enough to fully run the affairs of the department during my absences, which were frequent and long continued. He of course had dictated and signed letters, signed vouchers, payrolls; did everything, in fact, that I could do, except such acts as were limited to me by my appointment.

Q. Now, he was assistant to you at the time you first were appointed as Land Agent?

A. Very shortly afterwards.

Q. Had he been in the office of the Land Department prior to your arrival there?

A. Yes.

Q. How long a period of time would you be away from the office at any one time during the period when he was assistant?

A. Oh, three to four months sometimes. I was in New York frequently and spent possibly half the time there.

Q. Well, you came to the Land Department, I believe you testified, some time in 1903?

A. No; I came to the city—oh, you mean some time in 1903?

Q. Yes.

A. Yes; August, 1903.

Q. At that time had you any knowledge of the base lands in the location of the indemnity main line grant of the [860] Southern Pacific Railroad Company?

A. When I went into the office?

Q. Yes.

A. No; I had no knowledge of them at all.

Q. How soon after arriving there was it that the selection list of these lands was first made?

A. I think it was made that same month—August.

Q. Who prepared that selection list and when did you first learn of it?

A. It was prepared by Mr. Stone. He had charge of all that work all the time he was in the department while I was there.

Q. Mr. Stone has testified that one E. T. Dumble, a consulting geologist of the defendant Southern Pacific Company, came into the office and for reasons best known to himself pressed the selection of these lands in suit. Do you know anything about that?

A. Why, I have no recollection of Mr. Dumble having had anything to do with it, that list or any other list.

Q. All you remember of it, then, is what?

A. I don't remember any of it.

Q. I mean to prepare the selection list?

A. Simply the authorization of Mr. Stone to make selection of lands and my execution of that list.

Q. Did Mr. Stone present the list to you for your signature?

A. Yes. He had to.

Q. Did you have at that time any knowledge of the base lands contained in that list?

A. No. I knew nothing about it.

Q. Did you know anything about the other lands—their character or anything else?

A. Oh, no; I didn't know anything at all about the [861] department at that time.

Q. Well, then, this list was presented to you, I understand, for your signature, by Mr. Stone?

A. Yes sir.

Q. And was prepared by Mr. Stone?

A. Yes sir.

Q. And everything you were required to do, as acting land agent, was to execute the application and the affidavit?

A. Yes sir. That was limited to me.

Q. Did you have any talk with Mr. Stone when he presented the list?

A. I had nothing more than to inquire as to the non-mineral character, inasmuch as I had to make the affidavit.

Q. Of whom did you make that inquiry?

A. Mr. Stone.

Q. And he was the only man you talked with about it.

A. Yes.

Q. And what did he say about it?

A. He said they were not mineral.

Q. And on that you executed the non-mineral affidavit?

A. Yes sir.

Q. Did you send out anybody at that time to make any examination of the lands?

A. No sir, I didn't do it. I didn't consider it necessary. Stone was familiar with the land—claimed to be.

Q. Well, he was familiar generally with the location of the entire ground, wasn't he?

A. Well, I understood that he had been through this country, knew the lands.

Q. Now, had you at that time, or since—at any time—acquired any knowledge further than the knowledge which was given you by Mr. Stone, of the character of those lands, on the [862] occasion you have mentioned?

A. Personally I know no more about those lands now than I did then.

Q. Now, after that lease was made, Mr. Eberlein, did you subsequently, when you became more accustomed to the office, make any detailed examination of the lands that were embraced in subsequent lists?

A. We instituted a systematic examination of lands after that.

Q. After that time?

A. Yes sir.

Q. But at the time this list was presented by Mr. Stone you were somewhat green in the business of the Southern Pacific Railroad Company's land grant?

A. Yes.

Q. And were unfamiliar with the location or character of any of the lands?

A. Yes sir.

Q. Is that correct?

A. That is true.

Q. Did you ever have any discussion with Mr. Dumble after the offer was made that you execute this lease known as government's Exhibit YY, respecting his activities in examining lands not yet patented to the railroad company?

A. I don't remember a discussion with Mr. Dumble. I know I made protests in writing to him; but the discussion was had with other people—not with Mr. Dumble.

Q. Well, with whom?

A. Well, the matter was discussed with Mr. Kruttschnitt, Mr. Cornish and Mr. Markham, as I remember it.

Q. Beginning about what time? That is, what year?

A. It began in this year of 1904. [863]

Q. Right after this lease was proposed?

A. Yes; I think about that time.

Q. Well, what was the subject of that discussion? Did you ever make any protests, in any of those discussions, against the examination of lands by Mr. Dumble?

A. I objected to Mr. Dumble's examination of unpatented land without any reference to the department, for the reason that I was fearful that it might charge us with notice of the mineral character of the lands. Mr. Dumble didn't give us any information at all—never did—I didn't co-operate in any sense at all—and I heard or had reason to believe that a good deal of examination was going on of granted lands, and such of those as were unpatented and believed that it was very bad policy to examine before patent issued, especially without any reference to the land office.

Q. Now, on this lease which is marked govern-

ment's Exhibit YY, it appears that the name of E. T. Dumble is endorsed under the statement "correct as to description." That lease was dated August 2, 1904. Did you know at that date that Mr. Dumble was consulting geologist in the employ of the Southern Pacific Company?

A. I think so.

Q. What did that endorsement of Mr. Dumble's signature "Correct as to description" convey to your mind at that time?

A. Well, it was a surprise to me. I didn't know that Mr. Dumble knew anything at all about the grant of lands to the company; and in my letter to Mr. Markham, which is already in evidence, I called attention to errors in that list of lands which might have been avoided if the land department had been consulted about it. There were some errors such as the inclusion of lands entirely outside of the grant, that we had nothing to do with so far as we knew, and of course my [864] signature as land agent would not have been effectual at all to transfer any title to such lands—had no jurisdiction over them at all. There were a few errors of that kind, and from that time on the matter was pretty unpleasant; there were frequent clashes between the consulting geologist's office and the land department by reason of the fact of their insistence upon many things which in my opinion they had nothing to do with as they had no responsibility for it, and, as far as I knew, had no knowledge of it.

Q. How was Mr. Dumble's activity with reference to unauthorized examinations of lands not yet patented brought home to you?

A. Well, I don't understand that exactly.

Q. Well, were there ever any demands made upon you for lists by Mr. Dumble?

A. Oh, yes, yes; frequent demands for lists, and for lands. One demand was made in which, as I remember it, it was stated that they had frequent calls for granted lands and he wished to be advised fully so that they could answer all inquiries. And I replied to them that if they had any such inquiries about the granted lands of the company there was only one office that had any right to mix up in it or give any information, that the land department was responsible and if he had any such inquiries he could refer them.

Q. Did Mr. Dumble ever, prior to 1904, offer to you personally any of his expert knowledge which he had gained in the granted lands of the Southern Pacific Railroad Company as to the mineral or non-mineral character of those lands?

A. Prior to 1904?

Q. Prior to the date of the patent, in December, 1904?

A. No; I think not. I don't think so.

Q. Mr. Stone has testified that Mr. Dumble came in in 1903 to the office of the acting land agent of the Southern Pacific [865] Railroad Company, and for reasons, as he says, best known to himself, pressed

the selection of the very lands in suit. Have you any reason now to deny the truth of that statement, so far as you personally know?

Mr. Lewers—I object to the question, on the ground it assumes something in evidence which is not in evidence; that that is not a fair statement of Mr. Stone's testimony. Mr. Stone says he was under the impression that that had happened.

Mr. Mills—I will let the record speak for the correctness of my statement.

A. I don't think I would want to put it in that way—"deny the truth of Mr. Stone's statement."

Q. You may state it any way you please.

A. I can only say I have no recollection of Mr. Dumble having been in there in regard to that list at that time.

Q. You personally have no recollection, and he never came to you?

A. I don't think he ever came to me. I don't think I knew the man at that time. I have no recollection of him.

Q. Do you know whether he went to Mr. Stone as Mr. Stone has stated?

A. No; I don't.

Mr. Lewers—You know, Mr. Mills, Mr. Stone didn't state that Dumble went to him in connection with the matter. That is not a fair statement.

Mr. Mills—I don't mean to mis-state the record, and I will let the record stand as against my statement. I think I have quoted it correctly.

Q. Do you know whether Mr. Stone had access to this separate file which you have referred to, at any time after the papers were segregated and kept separately?

A. Oh, yes; he had access at all times. He had the file, [866] copied file, left with him when the papers were taken to New York.

Q. I show you this, Mr. Eberlein, and showing you this paper marked for identification AAA, what is that, if you recognize it?

A. That is a telegram from George A. Stone to me, dated December 27, 1907, addressed to me at 120 Broadway, New York.

Q. Is this the identical telegram that you received at that time?

A. Yes sir.

Q. Will you please read this translation and say whether that is a correct translation of the telegram?

A. Yes sir; it is.

Mr. Mills—Inasmuch as the exhibit AAA is in secret cipher and as the witness has testified that the translation which I shall offer is a correct translation, will you gentlemen stipulate the translation may be received with equal force as if the original itself were introduced?

Mr. Lewers—Oh, yes.

Mr. Mills—Then this translation is offered in evidence.

Mr. Lewers—No objection.

Mr. Mills—Then let this be admitted as government's Exhibit AAA.

Mr. Mills—I will read this into the record: “San Francisco, December 27, 1907. Charles W. Eberlein, Care Wm. D. Cornish, 120 Broadway, New York, N. Y. Have received from E. E. Calvin copy of lease from S. P. R. R. Co. to Kern Trading & Oil Co. of lands described in list which you have. Executed Dec. 12, 1907. Description approved by E. T. Dumble. Geo. A. Stone.”

The telegram last referred to and offered in evidence is [867] marked “Plaintiff’s Exhibit AAA—L. L.”

Q. I show you this letter, Mr. Eberlein. You may state what it is.

A. That is a letter from Henry Conlin, who was my assistant, dated December 27, 1907, and addressed to me at 120 Broadway, New York.

Q. This letter appears to be dated the same date as the telegram translation, and he says, “I inclose you translation of telegram.”

A. Undoubtedly the same.

Q. This is the one that was inclosed?

A. Yes sir.

Q. That is, that Exhibit AAA was enclosed in this letter?

A. Yes sir.

Q. Do you know Mr. Conlin’s signature?

A. Yes sir.

Q. Is that his signature?

A. That is his signature.

Q. Did you receive that letter in due course of mail?

A. I did.

Mr. Mills—Offer this letter in evidence.

Mr. Lewers—No objection.

Mr. Mills—The letter which transmitted that exhibit reads as follows:

“San Francisco, Cal., December 27, 1907.

Mr. Charles W. Eberlein, C/o

Hon. Wm. D. Cornish,

120 Broadway, New York, N. Y.

Dear Sir:—

I inclose you herewith translation of telegram sent you to-day regarding execution of leases by Southern Pacific Railroad Company to Kern Trading & Oil Company. [868]

You have in your possession a list of the lands embraced in these leases. You also have a map of these same lands, with colors showing status of title.

I also inclose you copies of the leases.

As you will note, Prof. Dumble has approved the descriptions, but there are a great many tracts described which, according to our records, are not owned by the company.

Yours truly,

Henry Conlin,

Ass't to Acting Land Agent.”

The letter last referred to and offered in evidence is marked “Plaintiff’s Exhibit BBB—L. L.

Q. I show you this letter, Mr. Eberlein. Please state what that is.

A. That is a copy of a carbon copy, apparently, addressed by E. T. Dumble to C. B. Seger, auditor, August 8, 1906.

Q. And what do the letters "CC to CWE" mean?

A. "Carbon copy to Charles W. Eberlein."

Q. So that you received a carbon copy of a letter from Mr. Dumble?

A. Yes sir; this is a copy of that carbon copy.

Q. What became of the original carbon copy that you received?

A. I think it must be still in the office. This is dated—

Mr. Mills—Have you any objection to the introduction of this?

Mr. Lewers—No.

Mr. Mills—We offer it in evidence.

Mr. Lewers—I suppose it is offered merely with reference [869] to the lands referred to in the lease. Of course it has nothing to do with Coalinga.

Mr. Mills—I will read this into the record:

"(5-21-06-1M)

Form 5746 B.

(Copy)

KERN TRADING AND OIL COMPANY.

E. T. Dumble,

In reply Refer to No.

Vice-President and

General Manager.

Oakland, Cal., August 8, 1906.

Mr. C. B. Seger,

Auditor,

City.

Dear Sir:—

Please be advised that the lease on Section 25, Township 20, South Range 14 East, Coalinga, formerly operated by Corey and Canfield under lease G-77 originally leased to Smith and Bryner, having been forfeited, the Kern Trading and Oil Company will operate the property under the general lease which it holds covering this land and paying as royalty one-tenth of total production.

Yours very truly,

ETD

(sgd) E. T. Dumble.

CC to CWE''

Copy of letter last above referred to and offered in evidence is marked "Plaintiff's Exhibit CCC—LL."

Q. By Mr. Mills—What is this paper I hand you?

A. That is a copy of a carbon copy of a letter addressed by E. T. Dumble to C. B. Seger, Auditor, August 8, 1906. The carbon copy was sent to me.

Q. That is to say, one copy went to Mr. Seger and one to [870] you, from Dumble?

A. The letter was addressed by him to Mr. Seger and the copy sent to me.

Q. By Mr. Dumble?

A. Yes; by Mr. Dumble.

Mr. Mills—This is offered in evidence.

Mr. Lewers—No objection.

Mr. Mills—I will read this into the record: S9 G—

“(5-21-06-1M) COPY Form 576 B

KERN TRADING AND OIL COMPANY.

E. T. Dumble,

Vice-President and

General Manager

In reply Refer to No.

Oakland, August 8, 1906.

Mr. C. B. Seger,

Auditor,

City.

Dear Sir:—

Please be advised that the lease on Section 31, Township 19 South, Range 15 East, Coalinga, formerly operated by the El Capitan and affiliated oil companies under lease G-20 having been forfeited, the Kern Trading and Oil Company will operate the property under the general lease which it holds covering this land and paying as royalty one-tenth of total production.

Yours very truly,

TED

(Sgd) E. T. Dumble.

CC to CWE

(The following written in ink:)

G.A.S.

compared by J.E.A.

Aug. 22-06

This copy made and attached to this file to show Mr. Dumble's [871] understanding about execution of lease to Kern Trading & Oil Co. This office has no information that said lease was ever executed G.A.S.”

The copy of letter last above referred to and offered in evidence is marked "Plaintiff's Exhibit DDD—L.L."

Q. By Mr. Mills—Whose handwriting is this in, Mr. Eberlein?

A. That is the handwriting of Mr. George A. Stone.

Q. Do you know what these figures appearing here mean, "Form so and so"?

A. No. That probably is the stationer's mark.

Mr. Mills—Now, Mr. Lewers, you called for all the papers which Mr. Eberlein produced under that subpoena. They have all been introduced with the exception of these two papers and three or four maps pertaining to lands outside of the McKittrick district, in connection with that deed.

Mr. Lewers—Haven't you any letters earlier than August, 1904?

Mr. Mills—Was that the earliest introduced?

Mr. Lewers—Yes.

Mr. Mills—No. Having shown my good faith in the matter, and based on your promise to produce, we now formally ask you to produce the lease dated December 12, 1907, executed between the Southern Pacific Railroad Company, defendant, and the Kern Trading and Oil Company.

Mr. Lewers—I will produce them, but I have not them with me now.

Mr. Mills—When will you produce them?

Mr. Lewers—I think in the morning—that is, bring

you a copy. I don't know whether I have the original or not.

Mr. McCormick—We also ask you to produce the lease men [872] tioned in the two letters which have just been introduced in evidence and marked respectively "CCC" and "DDD", designated therein as "The general lease which the Kern Trading and Oil Company holds in Coalinga," in the one instance and "general lease which the Kern Trading and Oil Company holds" in the other.

Mr. Mills—You may cross-examine.

CROSS-EXAMINATION
OF
CHARLES W. EBERLEIN

By Mr. Lewers:

Q. Mr. Eberlein, I show you a card, and ask you if you know what that is or by whom it was prepared?

A. That may have reference to something in the land department, but I can't identify it.

Mr. Lewers—I ask that this be marked for identification "Defendants' Exhibit No. 1."

The card last referred to is marked for identification "Defendants' Exhibit No. 1—L. L."

Q. You came to San Francisco in June, 1903, did you not?

A. I think so.

Q. So that when you said August a few moments ago as your date of arrival it was inadvertent?

A. That is a mistake. I took possession of the office in August.

Q. And when you first came here you were engaged in independent work in connection with the plan of reorganization, were you not?

A. General investigation. [873]

Q. Where were your offices at that time?

A. I think at the Palace Hotel.

Q. That is, you made the hotel an office?

A. Yes; I had no office that I remember. None had been furnished to me.

Q. Do you remember the number of the room that you used as your office?

A. No.

Q. Was it room 71?

A. No. 71, I think—this is simply my recollection. 71 I think is the room in the old Wells-Fargo Building. That was the office of the Southern Pacific Railroad Company.

Q. And that is where you were for a time after you became acting land agent? Is that the fact?

A. Yes; we were there until the offices were removed over to the Merchants Exchange.

Q. You moved first to the offices of the Southern Pacific Railroad Company when you were appointed acting land agent, did you not?

A. I simply took charge in that office.

Q. And at that time did you discontinue the other work which you had had on hand for the time being?

A. Well, now, if you mean the general work of

the reorganization, it would necessarily interrupt it by having to take hold of a lot of detail with which I was entirely unfamiliar.

Q. You were, however, familiar with the land grants of railroads in general, at that time, were you not?

A. I had been informing myself for the month preceding.

Q. And you had at that time some experience in the Union Pacific Company as to the method of handling railroad land grants? [874]

A. Yes.

Q. So that it was not entirely a new matter with you?

A. Oh, no.

Q. And it was merely that you were unfamiliar with the particular details of the land holdings of the Southern Pacific Railroad Company?

A. Yes sir.

Q. But in the broad sense you were quite familiar with the entire subject, were you not?

A. I had pretty good information as to land grant systems in general. They differed, of course, but the idea was to evolve for this coast one as nearly as possible a uniform system.

Q. In fact you had informed yourself as fully as possible in order to undertake this plan of reorganization?

A. I was informing myself at the time. There were three grants here to be overhauled, and it was a very large contract.

Q. That is, the Central Pacific, Southern Pacific Railroad and the Oregon?

A. Oregon and California.

Q. And your intention, when you first arrived, and until Mr. Kruttschnitt requested you to take over this other work, was to be devoted entirely to that line or plan of reorganization?

A. Yes sir.

Q. In doing that did you have access to the company's various offices, all of them?

A. Yes.

Q. You came here with authority to look into any details in any of those offices you could get or wanted?

A. Call for any information. That was my understanding.

Q. And did you have a force assisting you?

A. No, I had not at that time. [875]

Q. That is, it was individual work chiefly?

A. The general plan was, by interviews with the land offices, to discover and call for different things. One thing was to find their method of doing business. Mr. Kruttschnitt or Mr. Harriman was anxious to have a uniform system and make a consolidation. That was the object of it.

Q. And your purpose in coming here was to acquire a sufficient knowledge of the details so as to recommend a method of consolidation, was it not?

A. To try to consolidate.

Q. Now, in doing that work, prior to the time Mr.

Kruttschnitt requested you to take over the Southern Pacific Railroad Company's grants, did you make any investigation as to the amount of land that was available for selection in any of the grants?

A. I called, I think, for information to show what the general condition of the land was as to patent and other items.

Q. And did you make any examination or investigation during that period prior to August, 1903, with reference to indemnity lands?

A. I don't remember; but I presume I did endeavor to inform myself as to the grant of lands that were lost and the amount of the indemnity lands that were available.

Q. Now, was there any limit to the indemnity lands that were available at that time?

A. Now, as to that I am speaking from recollection. I have nothing before me or at hand by which I can tell.

Q. In a general way, I mean.

A. There was a distinction between the main line and what was known as the branch line grant. The main line grant, as I remember it, had about 50,000 acres of base land, that is, main line lands lost, for which no indemnity had been selected. [876] That is my recollection, and I don't think that there was enough surveyed indemnity unselected at that time to indemnify the road for the loss.

Q. Well, was it not also a fact you discovered in your investigation, that considerable portions of this

indemnity land that could be selected had been located and selected by individuals, so that it was lost to the company?

A. I remember, now that you call my attention to it, I think there was something like 150 cases where indemnity had been settled upon by unauthorized people, as the railroad supposed, the railroad relying upon the terms of its grant, on the understanding that the indemnity was theirs until it was selected, that the indemnity was set aside to the railroad company the same as the grant; but the Secretary of the Interior held the contrary to that contention.

Q. Do you remember when that holding was made, generally?

A. It was before I came here. The reason I remember that now is I have a recollection, about the time you refer to, Judge Singer calling my attention to a record which was in his office. It was a book in which was set down the names and the condition to the titles of about 150 cases, as I remember, where it had been attempted to eject those people by process under the laws of California by reason of their being on indemnity land, the attempt being made by the railroad company to select indemnity, and they were defeated by this decision I speak of in those cases.

Q. So that, by reason of that decision, there was lost, from the railroad standpoint, a very considerable amount of indemnity land?

A. Yes sir. It was a very burdensome decision, and an unjust one it has always seemed to me.

Q. And that also gave you the impression at that time, did [877] it not, that there would be danger of losing further indemnity land in the future?

A. Yes sir.

Q. Now, when you assumed the duties of your office as acting land agent—which you say was some time about the first of August, was it, in 1903?

A. To be exact, I think it was the 12th.

Q. That is, you took over the actual work of the office before this resolution of the company was adopted?

A. Yes; about a month before.

Q. Now, at that time did you have in mind the possible loss of this indemnity land?

A. Yes sir.

Q. And was that one of the matters to which you directed your immediate attention?

A. Yes; I think it was one of the first things I paid attention to.

Q. And was not that your main reason for directing Mr. Stone to make up this list No. 89?

A. My recollection of that whole situation was that my object here, as I supposed when I came out, was the same as it was on the Union Pacific. I re-organized that land grant and put it in shape to sell and did sell it; sold it out very rapidly. But when I came onto the Southern Pacific I found a condition that was entirely foreign to anything that I had

known of before that time or had even supposed were possible. I refer now to some—well, five or six, perhaps, suits brought by the United States on different grounds involving, in two or three cases, overlaps between the old Atlantic and Pacific grant and that of the Southern Pacific, the main line and the branch line, which was a very complicated condition; and I found that by far the larger part of the available lands [878] or lands which might come into market were tied up in those suits, so that the lands that might be available for selling purposes were very few indeed. There was a large amount of land subject to defaulted contracts, and they could only be recovered and made salable by appropriate proceedings, such as foreclosure, as I take it; for, as I was advised, I think by Judge Singer, that after four years default all we could do under our contract was regular foreclosure. That being the case, my recollection in this case is that the lands through this section, and including these lands in these townships which are covered by that selection list 89, had been only a short time before surveyed, and they became selectable, and it was my plan to select promptly so as to save everything that was possible to the company.

Q. It is a fact, is it not, that part of the survey of this Township 30-23 was filed in the local Land Office at Visalia in the month of May, 1903, just before you came here?

A. My impression was it was some time in the spring. I know I could not understand why they

hadn't selected it at once. It was always the plan in the department in my time to immediately get after indemnity as soon as there was a survey made.

Q. And having that in mind you directed the immediate preparation of this list, did you not?

A. Yes sir, I did.

Q. And you directed Mr. Stone to prepare it?

A. Yes sir. Mr. Stone was familiar with all the details.

Q. And did you, in connection with that, make any inquiries of him as to the character of the land?

A. Just a general inquiry, when I made the affidavit, as to whether there was any of it mineral.

Q. And he informed you he had been over the very ground[879] in question, did he not?

A. I believe so. It was my understanding that he was familiar with the ground, and that they were not mineral.

Q. Mr. Stone had been a land grader, had he not, for the company?

A. Yes sir.

Q. A land examiner?

A. He had been the examiner for a number of years.

Q. Up to the time you made him your assistant he was a land grader, was he not?

A. Yes sir.

Q. So that, when you signed the affidavits which were attached to this application, you did so in good faith and believed fully that they were stating the absolute truth, did you not?

Q. And you had no information or intimation

A. I think so.

from any other source to the contrary?

A. I think not.

Q. Now, the first affidavit to which you swore in this matter was signed some time in the fall of 1903, was it not?

A. My impression is that it was earlier than that. I think it was in the latter part of August.

Q. Well, you signed an affidavit, which is in evidence, on August 31, 1904, to rearrange list 89?

A. Oh, that is a matter that had entirely slipped my mind until brought up here in the hearing. I don't have any recollection much about that rearrangement. The only thing I do recollect is the return of the original list after it was filed.

Q. This may refresh your recollection: Did you not sign the original affidavit on November 7, 1903?
[880]

A. Now, I could not swear as to the date. I would think that it was earlier than that; but if that is the date on the document that must be the correct date.

Q. Now, after you had prepared selection list No. 89, as you have described, what was done with the list by the local land office at Visalia when you sent it down there?

A. It was returned.

Q. Why was it returned?

A. With the information that a general withdrawal—a suspension order, I think they called it,—

covered all the unappropriated land in Township 30-23 and a number of others, I think six or seven townships. It was a blanket withdrawal of everything, because—I didn't understand it was because of any discovered mineral, but because of the mineral excitement, probably, in the neighborhood in there somewhere in that part of the country.

Q. That is, did that order, when you learned of it, convey to your mind any belief that this was actually mineral land?

A. No; it did not. I talked with Mr. Stone; I don't know whether anybody else; and from my talk with Mr. Stone and the extent of that withdrawal the impression on my mind was that it was just one of those things, a sort of drag-net affair and there might or might not be mineral in any of that territory. There had been none found, so far as I know.

Q. That is, your understanding was that there was a very broad withdrawal and included good, bad and indifferent?

A. Yes. It was one of those hastily done things that didn't mean that the land was mineral. It only meant to tie it up so as to prevent any form of disposition until I don't know what. I don't know that the government as early as that went to the trouble of making any such investigations as they make now. I am inclined to think not. [881]

Q. Now, after the application was rejected by the Visalia Land Office on the ground of this withdrawal what was done with it?

A. Why, it came back to the office, and my impression being that it was probably something that required only action by the government to release, or release in part, I made application to the Secretary of the Interior, through our representative in Washington, to have a representative of the Department make an examination of these lands covered by our list.

Q. By Mr. Mills—Was that in writing?

A. Well, my letters were to Mr. Chambers.

Mr. Mills—We shall object to any of that unless the original is produced.

Q. By Mr. Lewers—You may proceed.

A. Well, the fact is that through Mr. Chambers I succeeded in having a man detailed to make that examination.

Q. Do you know who that man was?

A. His name was Ryan. That is my recollection. I never saw him, never had any communication with him; but he was sent into the field and did make an examination and reported. My request was that the government make such an examination as to determine which of the lands we had selected were mineral and that as to the rest we should be allowed to select. And the representative made the examination and reported that none of the land—

Mr. Mills—I interpose the formal objection to the statement “he reported”—(to the witness) unless you know. Have you seen the report yourself?

The Witness—No.

Mr. Mills—And unless the report itself is produced.

Q. By Mr. Lewers—Well, so far as influencing your action in the matter is concerned, Mr. Eberlein, what influence did you [882] receive from the report that was made by this government man?

Mr. Mills—We object to that as so indefinite and vague as to be wholly objectionable.

A. The impression conveyed to me was, and I found the fact to be, that the suspension order was revoked, at least as to these lands of ours, and we made the selection and the selection list was approved.

Q. By Mr. Lewers—Now, was the action of the particular inspector who went upon the ground in any way influenced or controlled by you?

A. Not at all.

Q. Or by anyone in your office to your knowledge?

A. No; not to my knowledge nor to my belief. I don't think anyone did.

Q. Or was his action directed, so far as you know or ever heard of, by anyone in connection with the railroad?

A. No sir, not that I ever heard of.

Q. You were informed, were you not, by the representative of the railroad company in Washington, Mr. Chambers, of the result of this examination?

A. Yes sir, and also, I think, checked that information by the land officers at Visalia.

Q. And there received information as to the letters that had been sent by the Commissioner of the General Land Office cancelling the withdrawal order?

A. Yes sir.

Mr. Mills—We object to that and move it to be stricken out, and all such evidence as that, unless the original reports are introduced.

Mr. Lewers—We will see that they are introduced in due time, Mr. Mills.

Q. Then it is a fact, as you understood it at that time, [883] that the government itself examined and investigated this particular land?

A. Yes sir. I felt that they backed up the non-mineral character of that land entirely.

Q. And for that reason you went ahead with the application, did you not?

A. Yes sir.

Q. And you had no other suspicion or doubt in your mind as to the good faith of the entire matter, did you?

A. No sir, none at all.

Q. Now, on August 31st, according to the exhibit—I will show it to you so there will be no misapprehension. I show you Plaintiff's Exhibit G, and call your attention to the affidavits attached to that, that purporting to be a portion—photographic copy of a portion of list 89. That is your signature, is it not?

A. Yes sir; a photographic copy of it.

Q. And, turning to the next to the last page, that is also your signature?

A. Yes sir.

Q. Sworn to before Mr. E. T. Ryan, was it not?

A. Yes sir.

Q. And it was in fact sworn to before him?

A. It was.

Q. Now, at the time you made that affidavit to the rearranged list, you did so in good faith, did you not?

A. I did.

Q. And honestly and fully believed that it stated the facts?

A. I did.

Q. You had at that time received no information which led you— [884]

Mr. Mills—I object to the form of the question.

Q. By Mr. Lewers—to a contrary belief, had you?

A. No sir.

Q. Now, when was it, if you recollect, Mr. Eberlien, that you first met Mr. Dumble personally, can you fix it by anything?

A. I have tried that; I have tried to recall. I don't recollect having seen Mr. Dumble until the day that I first heard about the Kern Trading and Oil Company.

Q. I call your attention to the letter of October 7, 1904, from you to Mr. Dumble, which has been introduced in evidence, No. OO, and ask you if that letter serves to refresh your recollection in any way as to when you first met Mr. Dumble personally?

A. Well, it was before that, I am very sure, but I have a kind of an idea that it was early in 1904. I cannot now remember of Mr. Dumble having an office in that building. This undoubtedly refers to the old Wells-Fargo Building before the fire.

Q. That is, when you refer to meeting him at room 71, you are referring to the room which you then occupied?

A. That is my recollection. That 71 was the Southern Pacific Land Office.

Q. Now, you say you think you had met him before that time. Had you had any discussion with him prior to that time about any of these matters that have been testified to?

A. I have no recollection. Mr. Dumble was, as I remember it, a Texas man, and his headquarters were at Houston, and I think that he was not in San Francisco such a great time. If he was I didn't know it. But at all events I had very little knowledge of Mr. Dumble for some time after—maybe in 1904, in the middle of the year we may have had something to do [885] with one another; but before that time I have practically no recollection of Mr. Dumble or Mr. Dumble's business.

Q. Was there any co-operation between your office and his office?

A. No; unfortunately not.

Q. And did his office in any way make reports to your office—at that time, I mean?

A. Not at that time, I don't think. In 1905, some

time during the year 1905, I think that Mr. Dumble's office then was organized. He had an office in the Merchants Exchange Building, and I think his field force looked after the collection of royalty oil on a lot of our Southern Pacific oil leases.

Q. By Mr. Mills—Southern Pacific Railroad Company do you mean?

A. The railroad company had a number of leases on royalty basis, and I think he looked after that and made reports as to that, but nothing else that I remember of.

Q. What time was that? Can you fix the date?

A. I can't fix that date; in the spring or summer.

Q. What year?

A. 1905. It was before the fire.

Q. By Mr. Lewers—That is, it was just the year before the fire?

A. Yes sir.

Q. And that was the first connection between Mr. Dumble's office and your office, was it?

A. I think anything like a business connection. I don't remember of anything else.

Q. Under the resolution which made you the acting land agent of the Southern Pacific Railroad Company, and under the instructions which you received from Judge Cornish and Mr. [886] Kruttschnitt, you in no way considered Mr. Dumble as having any right of exercise of authority over your office, had you?

A. I had not.

Q. And you regarded yourself as the person solely in charge on the Pacific Coast, did you not?

A. I did.

Q. And you were able to look after your own affairs, were you not?

A. Ask the other boys. I don't know.

Q. That is, you endeavored to do so?

A. Yes sir. Oh, yes; I felt I would be responsible and so usually insisted on doing the thing in my own way.

Q. Now, did anything come in any shape, prior to the time when you signed this second affidavit in August, 1904, to lead you to believe that this land was actually mineral land—referring to your own personal belief in the matter?

A. No sir.

Q. Did you ever receive any information that this land in 30-23 was mineral land?

A. No sir; I never have.

Q. And the only circumstance that seemed to you to require consideration was the execution or attempted execution of this lease, was it not?

Mr. Mills—I object to that question, and all other questions in that form. If you want to testify, take the stand.

A. I have testified in that matter, and considered it a very impolitic thing to do at that time and I remember now to have had no impression of the mineral character of that land; but it did decidedly convey the impression to my mind, and also to that

of Judge Cornish, that it was a wholly improper proceeding for me to take under the circumstances.

Q. By Mr. Lewers—That is, you had the impression that it [887] didn't look right?

A. I had the impression—now, not reflecting on the other gentleman, but so long as I had made a non-mineral affidavit here as to lands that lay alongside and in and among these lands—I had the impression that to make a lease of lands such as was attempted to be made was pretty sure under the circumstances to make trouble and raise a presumption.

Q. That is, did it mean to you—the existence of this lease—that the lands were actually mineral?

A. No; no. It did not.

Q. Did you anticipate that as the result of the execution of that lease speculators might get in and make locations?

A. Undoubtedly they would—among other things. The other thing was that the government would undoubtedly have its attention directed at once by the activities of these same oil speculators to the fact as it existed and bring about the question of my good faith when I made that affidavit.

Q. What you anticipated at that time was this, was it not, that the existence of that oil lease becoming known would cause people to go in there and locate as speculators and in that indirectly bring about possibility of difficulty with the government?

A. Undoubtedly they would.

Q. Irrespective of whether or not the land contained oil?

A. Well, I don't remember of thinking that, but undoubtedly that is the case.

Q. Do you know whether or not Mr. C. H. Markham held any position in the Southern Pacific Railroad Company in 1904?

A. I believe he was the vice-president; though as to that I am not sure.

Q. That is, you have no definite knowledge whether he was or not? [888]

A. No sir; I can't say now definitely.

Q. He was the ranking official in 1904 on the Pacific Coast of the Southern Pacific Railroad, was he not?

A. Yes sir; after the withdrawal of Mr. Kruttschnitt to Chicago.

Q. Yes; that is, I mean after Mr. Kruttschnitt went to Chicago?—

A. Yes sir.

Q. Mr. Markham became general manager?

A. Mr. Markham became general manager.

Q. And he was succeeded for a short period by Mr. Bancroft, was he not?

A. Yes; a short time.

Q. He filled in the interim until Mr. Calvin came in?

A. That is true.

Q. Now, when was it if you can fix the time that you first learned from the auditor's office or from any

other source that this lease which you had refused to sign was being acted upon?

A. My recollection is that as near as I can fix it in my mind from a good deal of thought it was in the fall of 1904. It was before I had the talk with Judge Cornish, at least.

Q. And it was before the date when the patent was received to this land, was it not?

A. Yes sir.

Q. Now, during the period between August 2nd, when this lease was signed by Mr. Markham, and the time when the patent was granted, you had a number of conversations, did you not, with Mr. Markham about the matter?

A. Yes; we had a great many talks.

Q. Mr. Markham endeavored, did he not, to persuade you to sign that paper? [889]

A. Yes, he did.

Q. He got rather strenuous once in awhile, didn't he?

A. Yes, he did. We didn't disagree outside, but we did about land management.

Q. That is, in connection with that matter you didn't agree, did you?

A. We didn't agree, no; unfortunately.

Q. And Mr. Markham expressed his views quite strongly and you did the same, did you not?

A. Yes, I did.

Q. Mr. Markham was pretty insistent that you should sign this lease, was he not?

A. Yes; he did not see why I should not do it, and, as he told me, he considered that he was in charge of affairs generally here on the coast and proposed to manage land affairs, too.

Q. And you didn't believe from your appointment he had authority to do that, did you?

A. No; I didn't, when I was being pulled on the other hand and told that I was to report there. It came to a show-down once or twice.

Q. Now, in your discussions with Mr. Markham about this, did you reiterate any of the other portions which were contained in the letters which you wrote?

A. Yes, we talked those matters over.

Q. And notwithstanding that he still insisted upon the lease being executed, did he not?

A. Well, my recollection now is that Mr. Markham was insistent about the execution of that lease; kept it up, and letters kept coming in asking for it. And you remember Mr. Markham was not there such a long time. He left in the fall, I think, of the same year. [890]

Q. That was when Mr. Bancroft came in?

A. Yes sir. Mr. Markham resigned there quite suddenly to the surprise of everybody and left immediately for Texas. I remember going out with him on the train to Los Angeles, having a long talk with him on the way down.

Q. Where is Mr. Markham now?

A. He is president of the Illinois-Central, with headquarters at Chicago.

Q. Now, did you have any discussion—I mean oral discussion and not by letter—with any other official of the Southern Pacific Company or the Southern Pacific Railroad Company with reference to the execution of this lease?

A. Yes; as I have already testified to, quite an extended discussion with Judge Cornish about it.

Q. Well, did you have any discussion with any other official in New York?

A. Yes, that think was discussed with Mr. Harri-man.

Q. And was it discussed with Judge Lovett?

A. Yes sir.

Q. When was the discussion held with Judge Lovett?

A. Well, there was more than one discussion with Judge Lovett. One time I remember discussing it with Judge Lovett and Judge Cornish. As to just what year that was I can't recall, but it was probably since the fire.

Q. Was it not in the month of May, 1908, just before you went to New York?

A. No; that was the time that Judge Lovett, Mr. Cornish, Mr. Harriman and myself had a discussion about a great many things, and this among others.

Q. Then you had had another discussion in which Judge Lovett took part prior to 1908?

A. Yes; oh, yes. [891]

Q. Have you any way of fixing the time when that occurred?

A. I can't think of anything now that would fix it; but, as I say, I believe it was in—Oh, I don't know. It was somewhere around about the time of the fire, either soon before or not long afterwards.

Q. Were you in San Francisco at the time of the fire?

A. Yes sir.

Q. And had you been in New York immediately before that?

A. Now, let's see. Yes; those dates are clear, because of some other matters. I left here on the 28th of December, 1905, and I arrived here just three weeks before the fire. I fix those dates because I was sick with pneumonia most of that time and was in the south; some time in February, I believe, I was in Los Angeles, and afterwards in Yuma and came from Yuma right here, and was sick here and confined to the hotel until just three days before the fire. I happen to fix those dates very certainly.

Q. Now, how soon after the fire, if you have any way of fixing it approximately was it that you went to New York again?

A. I went in May.

Q. Went in May?

A. And I came back in September.

Q. Now, it is your impression that this conversation with Judge Lovett was held on one of those two occasions, either before or after the fire?

A. I think so. It was somewhere in that neighborhood I am pretty sure, though I can't exactly fix it.

Whereupon the further taking of testimony herein was adjourned until Tuesday, July 2, 1912, at 10 o'clock A. M. [892]

On Tuesday, July 2, 1912, at 10 o'clock A. M., the further taking of testimony herein was resumed.

CROSS-EXAMINATION
OF
CHARLES W. EBERLEIN

resumed.

By Mr. Lewers:

Q. Mr. Eberlein, you have had an opportunity, have you not, to read over the testimony which you gave in Los Angeles, to refresh your recollection?

A. Yes sir.

Q. And have you a copy of that testimony before you this morning?

A. I have it here; yes sir.

Q. Referring to the opening part of your testimony, on page 1724 of the transcript, you were asked with reference to the resolution of the board of directors of the Southern Pacific Railroad Company appointing you as acting land agent, and replied to the question that you had not seen that document for years, that you had forgotten all about it. Do you know where that document was kept after the fire?

A. No. It must have been kept in the safe where such papers were kept.

Q. Was that one of the documents which you had in that private file?

A. It may have been. I can scarcely account for

its condition otherwise. If it hadn't been it would have probably been entirely destroyed.

Q. Well, was that one of the documents which you produced under the subpoena that was served upon you?

A. No sir.

Q. Do you know who did produce that document?
[893]

A. I do not.

Q. That is, it was not produced by you?

A. Not by me.

Q. And you have no knowledge of how the government obtained possession of that particular document?

A. Absolutely none.

Mr. Mills—I want to interpose an objection here of record, that, in view of the hostility of this witness towards the government, and his very evident bias and interest on behalf of the defendants, I shall hereafter insist emphatically that the common rule of permitting leading questions upon cross-examination is, and of right ought to be, reversed in this case and this man treated as an adversary and hostile witness; and I shall insist upon the right to cross-examine this witness at length, because, in view of his relations to the Southern Pacific Railroad Company and of the corporate character and capacity in which that company is sued, this man might well be said to stand in the shoes of the defendant itself.

Mr. Lewers—The vehement outburst on the part

of counsel is nothing new. It seems to occur every time testimony is introduced which does not favor his particular contention, and is entirely in accord with the outbursts which have appeared from other counsel for the prosecution, including the Attorney-General of the United States. All that we desire in this case—and I will state this for the benefit of counsel for the government—is that the exact facts be brought out, without misrepresentation against this witness or against the defendant companies here, and I have a perfect right to examine this witness as to any matter that was brought out on direct examination. If counsel for the government has any good reason why they do not desire the facts concerning the production of documents that this witness did not produce brought out, I will [894] be very glad to hear those reasons; but in the meantime I shall pursue the inquiry along the lines indicated.

Mr. Mills—I want to say to you for your own benefit that we will bring out everything that we think will be of advantage for the government and everything we believe is of advantage to the Southern Pacific Company or the Southern Pacific Railroad Company. You have charged me, Mr. Lewers, once or twice in this case with unprofessional conduct in seizing papers, and I think you owe me an apology, for his conduct since has shown that the only way to get those papers was to put the witness under subpoena.

Mr. Lewers—I remember very distinctly that my objection was to your method of taking the docu-

ments out of the witness's possession and into your office, and insisted that you proceed at once to examine him about it, and you were unwilling to do so.

Mr. Mills—I could not very well proceed until we had examined the papers. They might not have any materiality at all in this case.

Mr. Lewers—I also call attention to the fact that on page 1724 of the record Mr. Mills stated that before the finish of the testimony in chief of Mr. Eberlein he would show—that is, Mr. Mills would—from whose custody the particular resolution had been produced; and that was not done.

Mr. Mills—Well, I intended to do that before I finished; but it was omitted by inadvertence. I thought perhaps you would want to cross-examine the witness anyway before I introduced any new documents. I don't intend to conceal anything.

Q. By Mr. Lewers—Now, I understand that the papers that referred to the Kern Trading and Oil lease matter were kept by you in a separate file?

A. Kept in my personal custody.

Q. And you began making this segregation into a separate [895] file at what time, as near as you can recollect?

A. Oh, I kept it from the first, from the time that attempted lease came into my possession.

Q. That was some time in August, 1904?

A. The original document on which everything is based came into my possession on I think the 2nd day of August, 1904.

Q. I believe you testified that on August 2nd you were present in Mr. Markham's office and saw him sign that lease?

A. That is true.

Q. At that time had you made an examination or checked over the list of lands contained in that lease?

A. No sir.

Q. And I understand that you left that day for Denver or Portland?

A. I left for Denver. That is fixed by the telegrams that passed.

Q. And how long, as nearly as you can recollect, was it before you returned to San Francisco?

A. The occasion of my going to Denver was the hearing before the Public Lands Commission appointed by the President, and I was sent there as the representative of the Southern Pacific Company. From there I went to Omaha, and I am not clear as to whether I went on to New York, but I think I did; and I didn't return until possibly the end of the month.

Q. Until about the end of August?

A. I think so. It must have been along about the end of the month.

Q. That is, you fix that, in a general way, by the correspondence subsequent to that time, do you not?

A. Yes; I think so. I won't be sure about that trip to New York. I cannot be sure about that. Possibly not. But I did go to Omaha, and possibly to St. Paul. I think that is true. [896]

Q. That, I presume, is your best recollection?

A. Well, I am giving you the best I can fix it.

Q. Have you any memoranda of your movements at that time?

A. No. Unfortunately all my diaries were destroyed.

Q. In the fire of 1906?

A. Yes.

Q. And after you returned to San Francisco did you see this proposed lease?

A. Yes sir.

Q. Where was it?

A. In my office.

Q. It had been sent to your office in your absence, by Mr. Markham, had it not?

A. Yes sir.

Q. Did you at that time make any examination of it?

A. Yes; I went into it pretty carefully.

Q. State generally just what you did?

A. I examined all the provisions and wrote Mr. Markham in detail my views on that lease—the propriety of it.

Q. Now, prior to that time, when you had made your selection list 89 in 1903, had you made any examination of the maps or plats of any kind to ascertain what indemnity lands were left for selection?

A. I think not. I don't think there were any maps or plats in the Southern Pacific office at that time,—nothing more, possibly, than the government

maps that we had. I don't recollect of any maps of the grant.

Q. Well, what method did you use to ascertain where indemnity lands were that hadn't been selected?

A. I don't remember at this time. I think, though, that the controlling cause at that time was the fact of a recent survey. [897]

Q. That is, you had been informed, had you, of the Duee survey having been made?

Mr. Mills—I object to the form of the question as leading and extremely suggestive.

A. Of what survey?

Q. By Mr. Lewers—The survey of Township 30-23.

A. There were surveys of several townships, as I recollect, and this must have been among them, in which the company was entitled to indemnity.

Q. Was your attention particularly directed in any way toward indemnity lands at that time?

A. Not particularly; except the general policy of getting indemnity as soon as you could.

Q. Now, who initiated that policy, that is, who formed that conclusion?

A. Well, that always was my conclusion and my policy in everything connected with any of these grants.

Q. Then the selection of these indemnity lands was part of your plan in protecting the interests of the company, was it?

Mr. Mills—I object to that question as extremely leading and suggestive.

A. Yes.

Q. By Mr. Lewers—And who ordered or directed that this selection be made, list 89?

Mr. McCormick—Objected to as having been asked and answered twice already.

A. I ordered the selection list be made.

Q. By Mr. Lewers—Was that done at the instigation of Mr. Stone?

A. “At the instigation?”

Q. Yes. [898]

A. No. I rather think I instigated Stone.

Q. Now, how long after you became acting land agent, as nearly as you can fix it, was it that you appointed Mr. Stone your assistant in the office?

A. I think he was appointed in the same month, August, 1903.

Q. And prior to that time he had been doing what?

A. I was told, I believe, he was the land examiner of the department.

Q. And how long did he continue to be your assistant?

A. I believe until the close of the year 1907.

Q. And while you were absent he signed correspondence and did various other routine acts in the office, did he not?

A. Not only routine acts, but he had to be the responsible head of the department in my absence.

Q. That is, to attend to all matters that you would attend to yourself?

A. Excepting such as were limited to me by appointment or by governmental regulations, such as signing of lists and things of that kind.

Q. You understood that you were the only person who had the authority to sign selection lists, did you?

A. Yes sir. I believe that is the fact.

Q. Now, what was the occasion of Mr. Stone leaving the service of the company?

A. Well, insubordination.

Q. In short, state how that came up?

A. Well, to explain: The facts in this case rest upon Mr. Stone's physical condition, largely. I think that is a fair explanation to him. Mr. Stone was—after the fire, showed signs of break-down; that is, he was very nervous. I gave him quite a long leave of absence, in the hope that he would be in [899] condition again, but he came back and didn't show any improvement, much, and he became incapacitated to handle the heavy work of the office. It must be remembered that at that time the department was under severe stress from all sides. We had no records; everything had to be made anew; our correspondence files were gone; even our very contracts for the sale of land that the company had was destroyed—utterly wiped out. Those contracts were executory contracts, executed in duplicate, one copy in the hand of the vendee outstanding. Neither copy was on record except in a very few instances; and we were

in a pretty serious predicament. The work of handling all the detail of the office and at the same time bringing up records that had to be gathered from all quarters, was too much for Mr. Stone; he could not stand it; and he got so far behind that it became necessary for me to do something. Having in mind his long service with the company, I didn't want to do anything to hurt Mr. Stone in any way; so I divided the work, appointed another assistant, giving him a younger man and one better qualified to handle that class of work, charge over the office. And as all our gradings and examinations of land that had been collecting ever since the department was established had also been wiped out, there was the necessity of a very great deal of work to do in the field and it was time that it had to be taken up. There was enough there for two assistants to do. So I appointed Mr. Stone to organize a department of his own, with his own subordinates, his own field men, to take full charge of that, map the work out and prosecute it. His office was next to mine, and he was entire master of his own movements. He had the same salary and the same title. That didn't seem to suit Mr. Stone at all, though he didn't make any particular objection to it, as I remember it. I was called to New York; and at the same time the city of Los Angeles was exceedingly [900] anxious to get a right of way for the new viaduct across certain granted lands and indemnity lands of the company. It became necessary to examine those lands in order to make some selection lists; some surveys had to be made. It was an urgent

matter and one which we felt was not only right but good policy for the road to do everything it could to forward the work for the city of Los Angeles. I asked Mr. Stone to take particular charge of that and see that that work was done just as soon as possible and I thought he had better go down there and start it, keep his hand on it and get it done just as quickly as possible. I was east during all the time. He went away. Mr. Stone, it seems, took exactly the—placed an entirely wrong construction on everything; went into the field himself and stayed down there, and came back, and I found out after several weeks that he hadn't been to the office at all. I wrote to him about it, asked for a report; and then he said that the work I had put upon him was too severe, that he could not stand it. I wrote him calling his attention to the terms of his appointment; they need not be any more severe than the work he was doing—probably would not be so severe. But he was in that frame of mind that he didn't intend to co-operate at all, so I had nothing to do but give him his time and tell him to hunt other employment. I gave him, I think, a month in which to place himself somewhere else. It may have been longer; I don't know. That is the whole story of Mr. Stone's leaving the department.

Q. And what was Mr. Stone's attitude toward you after the last occurrence when you told him to hunt other work?

A. Well, I am advised it was pretty hostile.

Mr. Mills—I move that that answer be stricken, as purely hearsay.

Q. By Mr. Lewers—Did you have any personal interview [901] with him yourself after that time?

A. No sir.

Q. When was that?

A. In November, 1907, my last letter was written to him, the letter in which I told him to hunt for other employment.

Q. Did you receive any letters from him?

A. I think I received two communications.

Q. Do you know where those are?

A. Yes.

Q. You have them?

A. Yes.

Q. Have you them with you?

A. I think Mr. Mills has those letters.

Mr. Lewers—Have you them, Mr. Mills?

Mr. Mills—Yes. I will get them. Do you want them now?

Mr. Lewers—If you please. (Letters produced and handed to counsel for defendants.)

Q. I show you a letter dated December 5, 1907. Is that one of the letters you referred to as receiving from Mr. Stone?

A. Yes sir.

Q. And I show you another letter dated February 14, 1908. Is that the other letter?

A. That is the other letter.

Mr. Lewers—We offer both of these in evidence, together with the envelopes.

Mr. Mills—No objection at all.

Mr. Lewers—I will read the letter of December 5, 1907, into the record: “Oakland, December 5, 1907. Mr. Charles W. Eberlein, Care Hon. W. D. Cornish, 120 Broadway, New York. Dear Sir: In reply to your letter of November 30th I have just sent the following telegram: “Your letter November thirtieth received. Work outlined therein very different from that called [902] for by the previous telegrams and letters and can be undertaken with pleasure if you so desire and direct. Yours truly, Geo. A. Stone.”

The letter last referred to and offered in evidence is marked “Defendants’ Exhibit 2—L. L.”

Mr. Lewers—The second letter, of February 14, 1908, reads as follows: “2535-A Channing Way, Berkeley, California. February 14, 1908. Mr. Charles W. Eberlein, Acting Land Agent S. P. R. R. Co., James Flood Building, San Francisco, Cal. Dear Sir: Will you kindly advise me whether the company is willing in any way to show its appreciation of my faithful service of over thirty-five years. If the company has no further use for my services, as would appear from recent correspondence with yourself and other officials, it seems to me that as I have nearly doubled the length of service required for retirement I may properly be placed on the shelf with disabled and superannuated veterans. Thanking you in advance for your kindly offices in my behalf, I remain, Yours truly, George A. Stone.”

The letter last referred to and offered in evidence is marked “Defendants’ Exhibit 3—L. L.”

Q. Did Mr. Stone write you any other letters during that period that you can recollect?

A. I believe not.

Q. And did he ever write you a letter or tell you personally that he was going to make complaint to the government about any matter that occurred in the office?

A. No sir, I have no recollection of his ever saying any- [903] thing to me.

Q. Did you ever have it brought to your attention in any way that he had made such a statement, prior to the time he testified in this case?

A. Yes sir.

Q. When?

A. In New York, at about the time, I think, that that last letter came to me, he wrote a letter to Mr. Kruttschnitt which was very peremptory in tone and in which he threatened that unless something was done for him, either reinstatement or pensioning, that he would immediately lay before the United States government, the Department of Justice, I think he said, and the press certain facts in his possession.

Q. Did he say what they were?

A. No. It was a very brief letter. That letter was referred to me in New York by Judge Cornish.

Q. Was any answer made to it?

A. Not that I know of. I had these letters at that time, I believe. I showed them to Judge Cornish and we did not consider them important.

Q. And so nothing was done?

A. Nothing was done.

Q. Now, in connection with the selection of list No. 89, was there any unusual haste in the preparation of that list?

A. Not that I know of.

Mr. Mills—If you know.

Mr. Lewers—I am assuming he will only testify what he knows.

Mr. Mills—I am assuming you are doing the testifying most of the time.

A. No.

Q. By Mr. Lewers—What was the fact, so far as you [904] recollect, about the manner in which that list was made up?

A. I have very little recollection about it, to tell you the truth. I became left with the responsibility of that office. I took possession of it August 12th. I did it under protest, because of its interference with my other duties and the what I was afraid would be very great embarrassment to me, which is exactly what happened. It became necessary to make an entire reorganization of that department. The books and records also were in a very confused condition. I had to get an entire new set of clerks, for one thing, and my time was completely taken up with all those administrative details. My recollection is that I tried to keep up these other matters at the same time, and instructed Mr. Stone to make up a list selecting indemnity in the recently surveyed lands.

Q. Now, how soon after you took charge of the office did you direct this list to be prepared?

A. I think it was very shortly after. I can't give you dates.

Q. I mean approximately?

A. Oh, I think it was in that month, in the middle of the month, probably.

Q. Of August?

A. Yes sir.

Q. And the other work was carried on that you have outlined during the same month, was it?

A. Oh, yes.

Q. Now, referring to page 1733 of the transcript of your testimony at Los Angeles, you were asked concerning your knowledge of Mr. Dumble, and the following question was asked of you: "Well, as geologist of the Southern Pacific Company did he have anything to do with the lands of the Southern Pacific Railroad Company? A—No sir. Q—That is, officially, you say? [905] A—No sir; he had none that I know of. Q—But he did attempt, did he not, to have something to do with the lands of the Southern Pacific Railroad Company? A—Oh, he butted in frequently." Now, when was it that Mr. Dumble began to butt in?

A. Well, since I have testified, I tried to find, in my own mind, when I first met Mr. Dumble—came into collision with him, so to speak. I have no recollection of Mr. Dumble in the year 1903. I don't recollect that he even had an office. I don't think he was

in San Francisco much at that time. I may have heard of him, probably did, but I don't think I met him. The nearest I can fix anything was in the year 1904, when I presume the Kern Trading and Oil Company was in process of formation. He was in San Francisco a good deal at that time. I fix something by a letter there written to him by me, which refers to that room 71.

Q. The letter of October?

A. That is in October. Well, I probably knew him for some months before that. How many, I can't now tell. Anyhow we had very little to do with one another—so little that there is nothing that fixes it in my mind.

Q. When you used the expression that he "butted in" frequently, what period of time did you have in mind?

A. Well, subsequent to that time of which I am testifying now. I don't remember of his having anything to do with me before that time.

Q. Then it was subsequent to some time in 1904?

A. Yes; I think so.

Q. And after 1904 you saw more of Mr. Dumble than you had before, did you not?

A. Oh, yes. He had an office in the building. Especially after we moved to the Merchants Exchange Building.

Q. Now, on August 2nd, 1904,—I am referring to page [906] 1735 of the record—you received a letter from Mr. Markham enclosing the proposed lease

which has been introduced here in evidence, did you not?

A. Yes.

Q. That is, you received about that time a letter of that date. Do you know whether you received it the day it was written or not?

A. I judge not from the fact that Mr. Stone wired me in Denver that it had been received. I left the city that afternoon or evening. The letter being written on the 2nd was probably not received until the 3rd.

Q. That is, from the fact that Mr. Stone acknowledged this and notified you—

A. By wire.

Q. —you assume the letter was received after you left?

A. Yes sir.

Q. And you received a telegram in Denver from Mr. Stone, did you not?

A. Yes sir.

Q. Which is dated August 4, 1904?

A. Yes.

Q. And in reply to that telegram you wrote Mr. Stone on the same day, August 4, 1904, directing him to hold the Kern Trading and Oil lease until you returned, did you not?

A. Yes sir.

Q. And in that you stated “that there were no lands for sale at present and no oil lands for sale at any price. Do as told without reference to me”?

A. Yes.

Q. What had you told him to do that you referred to there?

A. I referred there to Mr. Stone's peculiarity of sending me when I was away notice of every little thing that transpired. [907] Now, the orders were that the lands were not for sale. There was a great deal of demand and especially a great many people running in to buy what they supposed was oil land, or what was known to be oil land. I wanted to head him off from sending me applications of people and saying that this man, that man and the other man had been in, and asking for instructions. I wanted to give him general instructions on it and head off any of that. He could say just as well as I could. There was no necessity for it being brought to my attention.

Q. By Mr. Mills—That is to say, he had the same powers, you mean, that you had at that time?

Mr. Lewers—Well, I prefer that you would not interrupt my examination, Mr. Mills.

Q. Your direction to Mr. Stone was to look after these matters in your absence in accordance with the instructions you had given?

A. Yes sir.

Q. Without bothering you, while you were away, with the details?

A. Yes.

Q. Now, you say it is your recollection that you

returned probably about the end of the month of August?

A. I think so.

Q. Referring to the letter of Mr. Markham, of September 5, 1904, page 1743, do you remember whether that letter was received by you?

A. I think it was received while I was in the office.

Q. And did you make any reply to that particular letter?

A. I think I did.

Q. Is your letter of September 10th to Mr. Markham a reply to the letter of September 5th that I have referred to?

A. I believe it is. [908]

Q. That is, in your letter of September 10th to Mr. Markham, which appears at page 1748. You say, "I have your letter of September 5th, in regard to the lease," and so forth. In saying that you were referring, were you not, to that letter of September 5th which is in evidence?

A. I believe that is the letter I replied to.

Q. Now, you say in that letter, in the second paragraph, that you have gone over the matter with some thoroughness, and beg to report that the instrument is not in condition for execution. Now, what examination had you made at that time of the lease?

A. For one thing, I had had the lands checked up with our records.

Q. For what purpose?

A. To determine ownership. That is the first essential.

Q. Now, what had been the result of that checking?

A. As I believe is stated in this letter, there were some serious mistakes. For instance, there were lands included in that lease that were not in the ownership of the Southern Pacific Railroad Company, so far as I was advised—the record didn't show it—and some that were not within either granted or indemnity limits, and therefore entirely outside of the jurisdiction of the Land Officer. He could not make a lease on those lands.

Q. Have you any recollection of the amount of land that was not in the ownership of the Southern Pacific Railroad Company in that list?

A. No, I have not. I don't remember. And probably it was a scattered tract here and there; but the fact was that it was outside of the granted and indemnity limits and therefore outside of any lands over which I had any jurisdiction or could make any conveyance. [909]

Q. What I am getting at first is, was there any land, to your recollection, which was inside of the granted or indemnity limits but not owned by the Southern Pacific Railroad Company, in that list?

A. I don't remember as to that, unless it be in the case of the townsite of McKittrick. The townsite of McKittrick, as I remember it, was on a granted section. The company had platted the townsite of Mc-

Kittrick several years before, or a year or two before, perhaps, and I believe that they had disposed or deeded or otherwise disposed of certain lots in that townsite. Now, the effect of this lease in regard to that townsite was that they ignored the platted character of it. It was attempted to be conveyed in this lease by its government subdivision, ignoring the fact that it had been regularly and legally platted, and plats of record, and I believe certain lots, parcels of land, in it, had passed from the ownership, or at least the record title had passed from the railroad company, and therefore were not subject to any action by the Land officer at that time.

Q. That is then one of the things that you referred to when you spoke of the inclusion of lands not in the ownership of the Southern Pacific Railroad Company?

A. That is one of the things I had in mind.

Q. And you specifically referred to the townsite of McKittrick.

A. I think I did, yes.

Q. Which is in the next paragraph. Now, at the bottom of the first page you say, "There are several provisions of the lease itself which I think should be modified. As it stands the lease provides for the payment of a royalty of one-tenth of the gross product or one-tenth part of the gross amount of moneys received from the sales of minerals, substances and [910] products. The obvious construction of this clause is a permission to some one, not specified, to

sell the company's royalty without limitation as to who may do so or the price to be received, etc. That clause giving permission to the lessee to use our oil or dry asphaltum for fuel, etc., without payment of royalty thereon is in conflict with that provision which gives to the company one-tenth of the gross product. In my opinion the one-tenth royalty being a small royalty at the present time at least should not be subject to any deduction, and especially to a deduction of this kind which is indefinite." Now, was that in your mind at that time a serious objection to the lease from the standpoint of policy?

A. Yes sir.

Q. Why?

A. For just the reason stated. I could not take the responsibility of making that lease for the railroad company and assuming the responsibility myself with those clauses in, and especially with my entire ignorance of everything that pertained to this lease—its inception and every fact and circumstance connected with it. I knew nothing of it. I knew nothing of the necessities of the case, and therefore I was obliged, for my own protection if nothing else, to go on record here and call attention to what appeared to be on the face of things defects.

Q. Well, had you not at that time heard of the prior organization of the Kern Trading and Oil Company?

A. I think I had heard something of the Kern Trading and Oil Company, just the floating talk

around the building; but as to what that company was or what it was to do or who its officers were or anything about it, I didn't know. I think I reported to my chief to that effect.

Q. By Mr. Mills—Permit me to ask who was your chief that you reported to? [911]

A. W. D. Cornish, of New York.

Q. By Mr. Lewers—Were you in San Francisco during the month of November, 1903?

A. November, 1903? I may have, though I can't fix that. I was called to New York frequently, and especially early in my time in San Francisco I was called there in reference to matters that I had had charge of in Idaho and in the Union Pacific's territory and in the suit in Texas; so that I can't recall. I made a trip to Texas in that year of 1903. Now, just when that was I don't recall. I was in Portland that year; now, just what time that was—

Mr. Mills—I shall have to object to any further statement, as irresponsible to the question.

Mr. Lewers—I am trying to ascertain whether he was in San Francisco in November, and I think it is responsive.

Mr. Mills—I think he may say whether he was in San Francisco in November, but not in Texas in the early part of the year.

Mr. Lewers—The witness is endeavoring to fix the time. Proceed.

A. I am trying to fix that to the best of my ability. I can't say definitely whether I was there in

October or November for the reason of that trip that I took, I am very sure, in that year to San Antonio in closing up some matters which I had been making examinations in that year of 1903.

Q. Now, did you not hear of the organization of the Kern Trading and Oil Company some time in the fall of 1903?

Mr. Mills—Objected to as extremely leading.

A. I don't recall that, and I hardly think so. At least, it didn't become as important or as talked about until 1904, that I now recall. I may have known about it then; I may have heard something about it. [912]

Q. By Mr. Lewers—Well, did you hear any talk or see any correspondence of any kind with reference to transferring or leasing any lands to this company prior to August 2, 1904?

Mr. Mills—We object to that question as it manifestly calls for immaterial and irrelevant answers.

A. To the best of my recollection no. Lapse of time has a very great deal to do with things I have not charged my mind with; but that is my recollection at this time.

Q. By Mr. Lewers—Now, proceeding with the statements in that letter of September 10, 1904, you say, "The clause of the lease which provides for the payment of taxes upon improvements only is not in my opinion fair to the railroad company. By reason of the improvements the assessment on the land is largely increased. The company gets only one-tenth

of the products and pays a large part of it in taxes upon an exceedingly high valuation. Taxation upon improvements amounts to but little. The improvements are not of an expensive character and are subject to deterioration from the time they are made." Now, at that time did you regard that as a serious objection to the lease?

A. Yes sir; because I believe, as nearly as I could figure it out, that the Southern Pacific Railroad Company would not get a cent out of this.

Q. Out of the ten per cent?

A. No sir; and it would probably be on the other side of the ledger, by reason of this lease.

Q. Did you, at the time you wrote the letter of September 10th, have any information in your possession as to the lands which were actually producing oil?

A. Excepting certain lands that were producing oil upon which the company had negotiated development leases; and it is upon the experience with those leases, the amount of taxes we paid on those lands, the disparity between the amount of the taxation [913] of the land and that upon the improvement, is what I was basing my judgment upon as expressed in that letter.

Q. Now, where were these lands that you now refer to?

Mr. Mills—Let me interpose the objection for immateriality.

A. They were in the Kern River field, and I be-

lieve some in the Coalinga. I don't recall those anywhere else, but I believe in those two fields.

Q. Had you, at the time when you wrote this letter on September 10, 1904, any information in your possession as to the discovery of oil or any indications of oil anywhere near McKittrick?

A. I believe not.

Q. Now, you proceed in the letter and state as follows: "In addition to this there is a very urgent reason for delaying the execution of these papers. We have selected a large body of land interspersed with the lands sought to be conveyed by this lease and which we have represented as non-mineral in character. Should the existence of this lease become known, it would go a long way toward establishing the mineral character of the lands referred to and which are still unpatented. We could not successfully resist a mineral filing after we have practically established the mineral character of the land. I would suggest a delay at least until this matter of patent can be adjusted." Now, was it your understanding when you wrote that letter that the lands that you were applying for in list 89 were interspersed with the lands mentioned in the proposed lease?

A. I think the examination after putting them on paper, showed that maybe the word "interspersed" is not the right word to use. They occupied a position that was very close—adjacent, as I remember it, in many cases. [914]

Q. But what I am getting at, if you can recollect,

is whether, at the time when you wrote this letter, you understood that these lands were interspersed with the lands which are included in the lease?

A. I think so. I think that was my belief at the time I wrote the letter—at least, that they were in very dangerous proximity to one another.

Q. And when you say, “We could not successfully resist a mineral filing after we have practically established the mineral character of the land,” did you understand that the execution of the lease itself would establish that there was mineral in the land?

A. No; I don’t think that that would follow. It did establish in my mind, knowing, as I did, from pretty long and hard experience, that any fact of that kind would be seized upon by the government department and would be used against the—

Q. By Mr. Mills—What land department?

A. The United States General Land Office, and would be used against the Southern Pacific Railroad Company to deprive it of the land.

Q. By Mr. Lewers—Now, at the time when you wrote that letter, on September 10, 1904, were you aware that the government had made an examination of that land and found it non-mineral?

A. At what date?

Q. When you wrote this letter of September 10, 1904?

A. I believe that the Interior Department Examination was either completed or in progress at that time.

Q. Well, isn't it a fact that the withdrawal was cancelled in February of 1904?

A. That I can't testify to, because I don't remember the date. It probably was, but I don't think it alters the fact as [915] set forth in that letter and the danger that would accrue.

Q. Well, what I am getting at is whether or not this examination by the government had not been completed prior to your writing this letter of September 10th?

A. It probably was; it probably was.

Q. Now, proceeding, you say, "I call your attention to the fact that this lease conveys oil lands and also assigns the existing oil leases. That being the case the management and control of oil matters will pass entirely from the land department. It seems a little singular that the company should assign oil leases which provide for the payment of royalties running from one-fifth to one-eighth, and now being paid to the company at that rate, and receive therefrom a decreased revenue without consideration, so far as disclosed by these papers." Now, was that, to your mind at that time, a serious objection?

A. If I had been the lessor, it would. But certainly it emphasizes the fact that I was entirely in the dark as to this whole proceeding, and the necessity, inasmuch as I was taking the responsibility, or expected to, of putting the thing squarely up to my superior officers, letting them judge, and if anything had been overlooked or anything had crept in here

inadvertently, that it might be corrected at that time.

Q. That is the reason you sent a copy of this letter to Judge Cornish, is it not?

A. Yes sir; I always informed him of everything that went on.

Q. And your experience, you say, with other individual leases in Kern River and Coalinga, had shown, even with their royalties and the payment of taxes, that there was no profit?

A. Very little profit, I think, in a great many cases. I won't say a great many, but in some cases that I had occasion to look into. The taxes are very high. Being railroad property [916] the railroad had to stand an exceedingly high valuation on its property. As I remember it, there was discrimination, and the railroad paid more taxes on the same character of property than individuals on adjacent lands.

Q. Now, were you informed at that time by anybody as to what test had been applied in determining what land should be included in this lease to the Kern Trading and Oil Company?

A. No; I knew nothing about that that I know of.

Q. Were you informed by anybody as to whether only proven oil lands were included or whether they covered a large territory, good, bad and indifferent?

A. I don't recollect of having any information; and if I had any opinion at that time it was, probably, that they had taken in a whole countryside there in that lease. It looked like it, at least, when they got it on paper.

Q. Referring to page 1753 of the record, to the letter of Mr. Markham, of September 14, 1904, it states: "Referring to your letter of September 10th, relating to status of our oil leases, I see no objection to going ahead with the original program of assigning to the Kern Trading and Oil Company all oil leases now outstanding, but I shall want you to continue your connection with the leases until such time as questions now under consideration shall have been disposed of. I quite agree with you that as a condition precedent to the continuance of at least a majority of the defaulted leases we should require that all undeveloped territory be surrendered to the company, leaving only the tract actually being developed subject to the terms of the lease." Now, did you write any other letter to Mr. Markham on September 10th besides the letter which appears in the record to which I have been referring?

A. Well, it would seem so from that extract you have just read. I remember that discussion. [917]

Q. Well, did you have any oral discussion with Mr. Markham about the matter that is referred to in his letter of September 14th?

A. About that matter that you have just read?

Q. Yes.

A. It is possible. I was called to his office at frequent intervals, and usually these matters concerning oil leases were discussed. The matter under discussion in that letter simply refers to the fact that we had a number of oil leases which under my con-

struction, I was obliged to compel performance of. When I took possession, there were a number of leases, royalty leases as we called them, which were badly in default; people were not operating them at all; and I had to get after those people pretty strong to make them produce and pay the royalty or else cancel their leases. I thought, and Mr. Markham evidently agreed, that it was a pretty hard thing to go after men who had spent a great deal of money in putting down wells and who from one reason or another could not continue or were not at that time pumping, and with one stroke cancel all their rights and interests. That was very drastic. And the only way out of it that I suggested was to let them surrender such land as they could not develop—hadn't the money—and let the company lease that to somebody else, so as to get the production.

Mr. Mills—I must interpose another objection for immateriality.

Q. By Mr. Lewers—And you say that you and Mr. Markham had discussions concerning this matter in his office?

Mr. Mills—Object to that question as extremely leading.

A. Yes sir.

Q. By Mr. Lewers—And do you recollect at this time writing any other letter on September 10th to Mr. Markham be- [918] sides the one which has been introduced in evidence?

A. Inasmuch as this letter which appears in the

record as September 10th has no reference to the matter spoken of in this letter of Mr. Markham's of the 14th, I think that the conclusion must be that I wrote a letter to him which he fixes as of September 10th. Now, whether he made a mistake in the date or whether I did actually write another letter of even date with the one which appears in the record, I can't say.

Q. I call your attention to the first paragraph of the letter of September 14th by Mr. Markham. Does not that refer to the matter contained in your letter of September 10th, and might not the explanation of the second paragraph be that you and Mr. Markham had discussed the matter orally?

Mr. Mills—Objected to as leading and suggestive.

A. Well, that is a construction that I hadn't thought of. It is possible.

Q. By Mr. Lewers—The first paragraph does refer to matters in your letter, does it not?

Mr. Mills—Objected to as leading.

Mr. McCormick—And calling for the conclusion of the witness.

A. The first paragraph of the letter of September 14th undoubtedly refers to this matter of the execution of this proposed lease; and it also refers to the proposition discussed in the letter of mine of September 10th to assign those leases.

Q. By Mr. Lewers—Now, I call your attention to page 1755, to a letter of Mr. Markham of September 21st, in which he says: "Referring to your let-

ter of September 10th on the subject of proposed lease from the Southern Pacific Railroad Company to the Kern Trading and Oil Company, would ask that you kindly check this matter at an early date as possible and let me know promptly from your standpoint whether there is anything in the [919] lease that is really objectionable, consulting with Mr. Dumble and the law department in order that the lease may be properly drawn." Now, did you receive that letter?

A. I think I was there at the time. I may have been in Portland, but I think probably I was there. No, I beg your pardon; I was not in the office in San Francisco. It clearly appears from my letter dated, "Portland, Oregon, September 21st," the same date.

Q. Referring to page 1758?

A. Yes.

Q. Do you know whether the letter of September 21st came to your attention?

A. It came sooner or later, but just when I don't know; probably when I returned to the office.

Q. Now, on September 21st, 1904, you again wrote Mr. Markham, did you not?

A. Yes sir.

Q. Page 1758. That letter was written from Portland, was it not?

A. Yes sir.

Q. And do you recollect now approximately how long after you wrote that letter that you returned to San Francisco?

A. I don't remember, off-hand, when; but I think I must have returned during that month, because I was writing Mr. Dumble early in October.

Q. That is, on the 7th of October?

A. On the 7th of October.

Q. Now, in your letter from Portland, of September 21st, you say, "I will take this matter up immediately upon my return and I think we can make such a settlement as will give satisfaction all along the line." In that you were referring, were you not, to these leases? [920]

A. Yes sir; I think so,—the oil leases that had been under discussion.

Q. That is, those that were forfeited?

A. Or that might be forfeited, and probably notices had been served on the defaulted lessees.

Mr. Mills—With reference to the letter on page 1753, had you entirely finished with that letter? You stopped just before the sentence beginning, "as a further consideration."

Mr. Lewers—Yes, I thought I had; because the rest seems to be devoted to some proposition that has already been asked about.

Mr. Mills—I didn't know but what you wanted to ask Mr. Eberlein about the next sentence in the letter, "As a further consideration I believe we should require that the product be shipped over the Southern Pacific Company's lines."

Mr. Lewers—No; I don't intend to ask about that. What was the purpose of the suggestion?

Mr. Mills—I wanted to know why you stopped in the middle of the letter. You had gone through the first letter completely and in all the other letters you go into them completely, but you stopped where it seems to have injured you.

Mr. Lewers—If you want to know, I hadn't noticed that until you called my attention to it. I don't regard it as of half as much importance as you seem to.

Mr. Mills—I regard it as extremely important.

Q. By Mr. Lewers—Now, referring again to your letter from Portland, which Mr. Mills don't seem to want me to ask you about—

Mr. Mills—Yes; I want you to go fully into it.

Q. By Mr. Lewers—(Continuing.) You say, “I shall have a new oil lease to submit to you, one feature of which will be that the lessee shall be restricted to just so much land as [921] they can and will bind themselves to develop.” You there again refer to individual leases, did you?

A. Yes sir.

Q. And not to the general broad lease?

A. No, no.

Q. Now, on page 1759, the second portion of that letter, second page, you say: “I don't know anything about the Kern Trading and Oil Company and have been left in the dark entirely as to the object and purpose of it. I did not wish to blunder along and bring myself into collision with Mr. Dumble in regard to matters as to which it would be his right

and not mine to decide. I wish to remind you, once more, that the lease to the Kern Trading and Oil Company, submitted to me, should not go through in its present shape, and that the schedule of lands referred to should be revised and corrected." Now, when you state that you don't know anything about the Kern Trading and Oil Company and have been left in the dark entirely as to the object and purpose of it, did you mean that at that time when you wrote that letter you had not been informed as to why the Kern Trading and Oil Company was getting this lease?

A. I think I had no official notice, information, at all about it.

Q. Had you been informed at that time as to what sort of land was being turned over to the Kern Trading and Oil Company?

A. No; I don't think they had informed me anything.

Q. Now, you say, "I wish to remind you, once more, that the lease to the Kern Trading and Oil Company submitted to me should not go through in its present shape and that the schedule should be revised and corrected;" what did you mean by that?

A. Just calling attention once more to the defects I have testified to a short time ago, that there were lands in there of which I had no jurisdiction, that the land officer [922] could not make a valid lease as to lands outside of the granted lands or other lands that had passed beyond the control or ownership of the Southern Pacific Railroad Company.

Q. Had your office been consulted in any way, to your knowledge, in the preparation of this list?

A. I think not.

Q. You hadn't been, had you?

A. I hadn't been, that I remember, at all.

Q. And was your statement in these various letters concerning this list being incorrect in the ways you have mentioned, based upon the records in your office?

A. Yes sir.

Q. And that statement was, according to your records, a true one, was it?

A. Was true as far as our records could show. Of course it was possible that the Southern Pacific Railroad Company might own lands without my knowledge or any knowledge of the land department, which was organized and controlled and directed only land grant lands. My powers, granted to me by the board, covered only land grant lands.

Q. Referring to page 1761 of the record, on October 7, 1904, you wrote to Mr. Dumble stating that, "You would be glad to take matters up with him as suggested any time tomorrow that will be convenient to you. I would suggest that you might find it more convenient to come to room 71, where we can have a room to ourselves and not be disturbed. If, however, you prefer I should come to your room, please advise me." Now, do you know whether or not the meeting that was referred to in that note to Mr. Dumble was had?

A. I don't remember anything about it. We may have met and talked over matters relative to this proposed lease at Mr. Markham's suggestion. [923]

Q. Well, have you any recollection of that meeting?

A. I don't remember a thing about it, and only that letter—nothing of any importance occurred, I think, because I don't recollect of any meeting with Mr. Dumble at all at that time. I must have had it, though, because Mr. Dumble refers to it in a subsequent letter.

Q. Now, referring to page 1763 of the record, to your letter of October 8, 1904, that letter was signed by Mr. Stone, was it not?

A. Yes sir; it seems to be.

Q. Well, do you know whether you were in San Francisco at that time?

A. No, I don't. October 8th.

Q. Now, you were there on October 7th, the day before, were you not?

A. I was probably there. If I was there the 7th I was probably there on the 8th; but I didn't sign that letter, and that might lead to the belief that I had gone to Texas or somewhere else at that time.

Q. But at the time when you wrote that note of October 7th, 1904, to Mr. Dumble, you expected to be present on the following day, did you not?

A. Apparently, from that note.

Q. And do you have any recollection of leaving?

A. No; I have not. I have not any recollection

of—No; that is something it is utterly impossible for me to fix.

Q. Now, in the letter of October 8, 1904, the statement is made, "Herewith I hand you plats showing the status of lands within the Southern Pacific Railroad Company's grant in," mentioning certain townships. Now, had there not been some discussion between you and Mr. Markham prior to that time with reference to the correctness of the description in the proposed [924] lease, and had you not called his attention to the fact that lands were included that didn't belong to the company?

A. I think I did tell him the fact. I called attention to it in the letter, certainly.

Q. Now, did you direct the preparation of any plats to show what the status of the Southern Pacific Railroad Company's title to the lands in the vicinity of McKittrick was?

A. I don't recollect of having directed any. I possibly did, if I had; but it was a matter that would not call for any direction from anybody, because it was a frequent matter for the operating department or the general manager or the engineering department to call for a plat showing our ownership of land and what condition it was in. Very often it became important to know whether lands were even surveyed, and they were furnished without any reference to me.

Q. Now, there was introduced in evidence as Plaintiff's Exhibit UU a plat, and I call your atten-

tion to that plat and ask you whether or not that is one of the plats that is referred to in the letter of October 8, 1904, sent to Mr. Dumble?

A. It may have been a copy of that. Now, I can't fix that. This was made evidently for my information, and it may have been, possibly was, a copy of a map furnished Mr. Dumble.

Q. Now, I call your attention particularly to the contents of that letter of October 8, 1904, where the statement is made over your signature by Mr. Stone, "Herewith I hand you plats showing the status of lands within the Southern Pacific Railroad Company's grant in Township 19 South, Ranges 14 and 15 East." Is that shown upon the plat?

A. Not on this plat?

Q. Not on that plat?

A. No. There must have been other plats furnished at the same time. [925]

Q. "Township 20 South, Ranges 14 and 15 East."

A. No.

Q. "Township 21 South, Ranges 14 and 15 East?"

A. No.

Q. In the Coalinga district. And "Township 30 South, Ranges 21, 22 and 23 East."

A. That is on this plat.

Q. "Township 31 South, Ranges 22, 23 and 24 East."

A. That is on this plat.

Q. "Township 32 South, Ranges 23 and 24 East?"

A. That is on this plat.

Q. Now, does that plat show the status of the title of the Southern Pacific Railroad Company to the lands in the townships last referred to?

Mr. Mills—Objected to, as immaterial and not fairly raised by this letter.

Mr. McCormick—The plat speaks for itself.

Mr. Lewers—I want to show that this is probably the plat, a copy of the one that was sent with that letter, which does not appear in the record.

Mr. Mills—You are mistaken about that. This plat is the one that came with the lease.

Mr. Lewers—Found with the lease, he says.

Mr. Mills—It accompanied the lease.

A. My understanding is that it did show the status of title at the time it was made. I didn't make it. It was furnished to me by those gentlemen whose names are signed as having checked it with the records—accepted by me, at least, as that.

Q. By Mr. Lewers—Now, this plat is stamped with the date "September 16, 1904?"

A. Yes. [926]

Q. Did you have such a stamp in your department?

A. Yes, we dated things, dated papers.

Q. With a rubber stamp in that way?

A. It was a dating stamp, I believe. I don't know. Those are details which I didn't have any occasion to have anything to do with.

Q. Now, did that map accompany the proposed lease that was sent to you on August 2nd?

A. No sir.

Q. Have you any recollection of where that plat did come from?

A. This plat?

Q. Yes.

A. It came out of the land department, made in the land department, evidently.

Q. Did it in any way accompany that lease, as a part of the lease, or in connection with it, to your knowledge?

A. Not this plat, that I know of.

Q. It is a fact, is it not, that that particular plat that I show you was found with the lease after the fire?

A. Yes sir.

Q. And that was in the vault in the land department, wasn't it?

A. Yes sir.

Q. In which building?

A. In the Merchants Exchange Building, in which we were burnt out April 18, 1906.

Q. Do you remember seeing that plat before the fire?

A. I think I must have seen it.

Q. Now, I call your attention to the notation that appears in several places on that plat, where the word "lost" occurs. What was the meaning of that? [927]

A. I understand that those are lands that were patented adversely to the company. This is the

westerly 30-mile limit, or the indemnity limit, of the grant. These are evidently adverse claims on these lands—possibly homestead entries.

Q. I call your attention to the legend that appears at the lower left-hand corner of that plat, and will ask you to read that, if you can.

A. Opposite the oblong character here in red is the legend, "Land included in lease to Kern Trading and Oil Company, all patented except southwest quarter of northwest quarter of Section 27, Township 30, South, Range 22 East, and all unsold except part of Townsite of McKittrick and the northwest quarter of the northwest quarter of west half of west half of northeast quarter of northwest quarter of Section 7, Township 30 South, Range 22 East sold and deeded, and east half of Section 7, Township 31 South, Range 23 East sold under contract." The next legend is opposite an oblong rectangle colored drab, and reads, "Patented unsold lands not included in lease to Kern Trading and Oil Company." The next is a rectangle colored brown, opposite which is the legend, "Unpatented selected lands." The next, opposite the yellow color, says, "Unsurveyed lands."

Q. Now, are the portions colored in red which are referred to in the legend as having been lost or sold the lands which you referred to in your letters as not belonging to the Southern Pacific Railroad Company, or a portion of them?

A. I think a portion of them. There are other lands that are entirely outside of that land.

Q. Referring to page 1765 of the record and to the letter of Mr. Markham of October 17, 1904, in which he states, "September 21st I wrote you on the subject of proposed lease from the Southern Pacific Company to the Kern Trading and Oil Company, asking that you kindly check this matter at an early date and [928] let me know from your standpoint whether there is anything in the lease that is really objectionable. Will you kindly advise status of matter at present time?", do you remember whether that letter was received by you?

A. I don't remember.

Q. Well, referring to the letter which appears on page 1767.

A. Yes; I must have been there, because I wrote on the 18th.

Q. That is, on the following day you answered the letter?

A. Yes.

Q. Now, in your letter of October 18th, appearing at page 1767, you say: "I am in receipt of your letter of the 17th inst. calling attention to the matter of the proposed lease from the Southern Pacific Railroad Company to the Kern Trading and Oil Company. Your letter has anticipated my letter to you on this subject. Mr. Dumble and I have had this matter under consideration in the past few days. The consideration of several matters in this connection is not yet complete, for the reason that Mr. Dumble is looking over his data with the intention,

as I understand it, of furnishing a new list of lands to be conveyed. The lease as now drawn conveys some lands outside of the grant and omits others that should be included. This is the most important matter connected with this lease, and I think the whole transaction can be closed as soon as Mr. Dumble reports." Now, does that letter bring back to your recollection whether or not, prior to October 18th, you had had a personal interview with Mr. Dumble?

A. Yes sir. I must have.

Q. And had there been any discussion, to your recollection, with Mr. Dumble, of this plat to which I referred a few moments ago?

A. I don't remember that plat, but if one was made and in [929] hand at that time I have no doubt it was before us.

Q. And do you know whether or not you gave any directions to anyone in your office to prepare a corrected list for the purposes of that Kern Trading and Oil lease?

A. I don't remember of having that or of Mr. Dumble ever having furnished a new list of lands.

Q. Now, you stated that "This is the most important matter connected with this lease, and I think the whole transaction can be closed as soon as Mr. Dumble reports." Did you have in mind at that time the possibility of closing the lease, signing it?

A. No sir. I was sparring for time. I didn't intend to sign that lease at all until Judge Cornish had a chance to pass on it.

Q. That is, you at that time hadn't heard from Judge Cornish in connection with the matter, had you?

A. No sir; he hadn't replied to my letter.

Q. Now, referring to page 1769, to the letter of Mr. Dumble to Mr. Bancroft, who was then the acting general manager, dated December 7, 1904, in which Mr. Dumble states that he has had a conversation with you and that "It seems for reasons of policy regarding certain unpatented lands that it will be best not to execute the lease of lands between the S. P. R. R. Co. and the K. T. & O. Co. at present," do you recollect that conversation with Mr. Dumble?

A. No, I don't. It is probably the same conversation that took place earlier that is referred to in these other letters.

Q. That is probably the same conversation in which there had been a discussion as to lands left out and lands put in which should not have been so?

A. Yes; the mistake in the original instrument.

Q. Now, how long, as nearly as you can fix it now from your [930] recollection, had Mr. Bancroft been here at the time when this letter of December 7th was written?

A. Mr. Bancroft came, as I recollect it, in about the middle of October. I recall that fact because Mr. Markham resigned in the month of October and he left almost immediately.

Q. Do you know what orders Mr. Markham gave with reference to the recognition of this Kern Trading and Oil lease before he left?

A. I am not aware that he gave any.

Q. Now, you learned, some time during the fall of 1904, that that lease was being recognized, did you not?

A. Yes sir.

Q. And were informed, were you not, that the auditor had entered it upon his books as a going lease?

A. So I was informed by the land accounts bureau, which was a branch of the auditing department.

Q. And vouchers for pipeage charges under that lease began to come into your department, did they not?

A. Yes; they did.

Q. And that was one of the matters that you called to Judge Cornish's attention when you talked with him, was it not?

A. That was one of the principal things spoken of, for the reason that I had been led to believe that that lease was in abeyance, the whole thing was in abeyance. I had nothing from anyone, as I remember it, nothing from Mr. Markham and certainly nothing at all from Mr. Bancroft, to lead me to believe that it was a lease or considered as a lease, and the first intimation I had they were going ahead with came from that source.

Q. Now, what did Mr. Markham tell you as to his authority over your department?

A. Mr. Markham took exception to some protest

that I put up [931] and the questioning of certain things that he had ordered done or intended to do regarding lands, and he informed me very pointedly that he was going to run the lands, that he was general manager of the Southern Pacific.

Q. By Mr. Mills—Southern Pacific Company?

A. Southern Pacific Company; and of course he was vice-president, as I remember it, of the Southern Pacific Railroad Company. In justice to Mr. Markham it must be said that the land matters were in an unnecessarily complicated condition. Mr. Markham had reason to believe from his position that he could issue orders and have them carried out regarding lands, having in mind the joker in the powers that were granted to me.

Q. By Mr. Lewers—What joker did you refer to?

A. I refer to the language which makes any acts of mine subject to the approval of the president or any vice-president.

Q. By Mr. McCormick—That language is in the resolution of the board of directors?

A. Yes sir. Now, so far as I was concerned, my connection with the lands was, by distinct stipulation made by Mr. Kruttschnitt, to be temporary. I was to be released just as soon as he could find a satisfactory man, and that language raised a very serious conflict of authority between Judge Cornish in the east and the manager actually in control on this coast, and I found myself right between the two, which I assure you was exceedingly unpleasant.

On this coast Mr. Markham was vice-president of the Southern Pacific Railroad Company and I think he honestly believed that he had a right to do anything with those lands that he saw fit—in a proper way, of course. My tenure of office and my authority there did not depend altogether on what the board of directors said—unofficially, I admit, but still it was none the less very controlling in my office. I belonged in the New York office, didn't belong here [932] at all; I came here and I came with instructions what to do.

Q. By Mr. Mills—From whom?

A. From Mr. Cornish. And, as I pointed out to Judge Cornish at the time I was appointed, and also to Mr. Kruttschnitt, my administrative duties here would very much complicate the other duties that been laid upon me by the New York office. I could scarcely see how I could carry both and it turned out I was right. It brought me into collision with different men out here unnecessarily, but as neither side would yield at all I was left here to fight it out the best way I could, and I got very little support from either side, and the only surprise in the situation is that I lasted as long as I did.

Whereupon the further taking of testimony herein was adjourned until 2 o'clock, P. M., at the same place.

On Tuesday, July 2, 1912, at 2 o'clock P. M., the further taking of testimony herein was resumed pursuant to the adjournment.

Whereupon, CHARLES W. EBERLEIN was recalled and cross-examination resumed, as follows:

BY MR. LEWERS:

Q. Mr. Eberlein, again referring to page 1769 of the record, where the letter of Mr. Dumble of December 7, 1904, is set out, when was it, if you can recollect, that that letter, or a copy of that letter, first came to your attention?

A. I don't know. It must have been very shortly afterward. I should judge so from the fact that those carbon copies were generally mailed at the same time the original is mailed.

Q. That is, the ordinary routine would be that that copy would be sent about the same time as the original would be sent [933] to Mr. Bancroft?

A. Yes sir.

Q. Now, were you in the office at that time?

A. That is a thing I can't fix. I know I went away. I fixed one trip. Whether I went through to Texas at that time I don't know. But I went out of town on the same train with Mr. Markham. I went as far as Los Angeles with him, and I laid over there and I believe I went on a day or two after.

Q. Was that the time he was going to Texas to assume his duties there?

A. That was the time he was going to Texas to assume his duties there; and we had quite a long talk on the way down to Los Angeles. I remember that very well.

Q. Now, that was in October, was it not?

Mr. Mills—I object to that as leading and suggestive. Let the witness state when it was.

A. I believe it was the latter part of October.

Q. Now, do you remember how long you were gone on that occasion?

A. I don't remember how long I was gone at that time. I don't remember how long I was in Portland. That was prior to this time. Only I know I was there. One letter was written from there. That is the only way I can account for my whereabouts during that part of the year.

Q. Well, have you any way of determining whether or not you were in San Francisco on December 7, 1904?

A. I have not any absolute way of fixing that. I probably was, because I went away, I am sure, that month. I think I was in New York in that month.

Q. Now, do you recollect, that is, is there any impression in your mind, brought out by the receiving of this letter of December 7, 1904? [934]

A. No, there is not anything connected with this letter. The only thing that I connect with Mr. Bancroft is a conversation I had with him in his office.

Q. Do you know whether that was before or after this letter was written?

A. I don't know; but it must have been about the same time, very near that time, I should judge.

Q. Now, was that conversation in regard to the same matter that is referred to in this letter?

A. It was in regard to several matters and this among them I am very sure.

Q. By Mr. Mills—That is, the matter in this letter?

A. The matter referred to in this letter, the execution of this lease.

Q. By Mr. Lewers—Now, what was said, if you recollect, about this lease by Mr. Bancroft?

A. Nothing excepting to say that he would be damned if he was going to mix up in any Southern Pacific squabbles. He was there to be as an interim officer, and he absolutely declined to “mix-up” as he called it. He said he was not going to be there, he was just there as an accommodation, and he was not going to take part in anything that there was any dispute in or anything of the kind. The whole idea was that he was just simply there in order to have an official head, but that he was not doing anything and didn’t intend to do anything, left everything. I think everything was practically in the hands of Mr. King.

Q. That is, Mr. Bancroft was looking after the actual operation of the road?

A. Yes. He was an operating man, and I knew him very well indeed from official connection with him back in Salt Lake, the Oregon Short Line, and of course he talked very freely to [935] me and he just simply said that he could not study out these things and he didn’t think it was worth while, because he would not be there.

Q. Now, who brought up the matter with him?

A. I think I did.

Q. That is, you made a statement to him with reference to it?

A. Oh, yes. He did not bring it up with me.

Q. What was it you told him, in substance?

A. I don't remember what I told him, excepting just the fact that this lease was pending, and he immediately protested that he did not know anything about it, he did not want to know anything about it or go into it, and he said, "You know I am here just a short time, and the shorter the better, and somebody else is coming in here—just leave those things and take it up later on."

Q. Did he ask for any of the files?

A. No, he didn't ask for anything.

Q. And did you show him any correspondence?

A. I think not.

Q. Was that a very long conversation between you in connection with this particular matter?

A. No, not in connection with that particular matter. We talked over a good many things, a good many things not connected with the Southern Pacific at all.

Q. Well, do you remember whether this letter of Mr. Dumble's of December 7, 1904, was referred to in that conversation?

A. I don't recollect, and I don't suppose it was referred to any more than any other. I don't know that he mentioned Dumble or that I did either. There were a number of things that were pending about that time, and I went over to talk with him, give him

what information I had or could give him, as I [936] had done in times past when I was working under him, and he made that characteristic remark of his that he didn't want to mix up in anything of that kind and said he didn't intend to; it wouldn't do any good, because he would not be here to see anything through; he was just going to let it hang.

Q. Is it your impression at this time that you were in San Francisco at the time this letter of December 7, 1904, was written?

Mr. Mills—The witness has already stated that the record will show that he probably was here and believes he was here.

A. I can't be positive. I would state exactly if it were possible; but in my mind the idea is that I probably was about that time.

Q. By Mr. Lewers—Now, did you go to New York in the month of December, 1904?

A. I think I did. I think I was there and that I went in the month of December, because I was down there around the 1st of January, I know.

Q. Now, where were you when you learned that the patent had been issued for this land in 30-23?

A. I don't remember that at all. I don't know that it made any impression on me—the issuance of the patent. I presume I was advised of it by Chambers.

Q. Who was Chambers?

A. D. A. Chambers was the attorney for the company in Washington, D. C. He appeared for the company before the Department.

Q. Is he alive now?

A. No; he died several years ago.

Q. Now, on page 1773 of the record appears a letter written by you to Mr. Cornish on September 3, 1904. Now, the opening paragraph of that letter or sentence is, "As you are [937] aware, the Kern Trading and Oil Company has been organized." Now, what did you mean by that statement?

A. I think I had written him with regard to it before. That is the only construction I can place upon it.

Q. But have you that letter that you wrote to him about it?

A. No.

Q. And that letter was not in the file which you produced here?

A. No. It probably hadn't any reference to this matter at all.

Q. Now, you say in the second paragraph, "I am totally in the dark as to the objects, rights, etc., of this corporation. I have asked for information several times but it has never been furnished me." Now, do you recollect now from whom you asked that information?

A. No, I don't. I don't know from whom I would ask it unless it would be the general manager.

Q. Well, do you recollect ever asking Mr. Markham, that is, have you any recollection of ever asking him that question?

A. I can't fix a recollection of asking Mr. Mark-

ham or Mr. Kruttschnitt, either one; but I must have done so, I must have asked somebody what it meant. I was keeping track of everything here and reporting to the New York office.

Q. Well, did you get any information from any source as to the purpose of the Kern Trading and Oil Company?

A. No. That statement there I think must be correct at that time.

Q. You understood, did you not, in a general way that the Kern Trading and Oil Company was to take over land in that vicinity?

Mr. Mills—I object to that question because it is highly leading and suggestive. [938]

A. I think my general understanding was that it was to take over oil lands of the company.

Q. By Mr. Lewers—Did you have any understanding as to whether it was to take over any land to be prospected?

A. No; I don't think I had any—as I was here—No definite information on the subject.

Q. Then it was your understanding or impression that the Kern Trading and Oil Company was to take over oil lands?

A. Oil lands. And the impression was strengthened by the fact of the proposal to transfer the leases.

Q. That is, the existing leases?

A. The existing leases.

Q. Did you know at that time whether on any

of the land covered by existing leases oil was being produced?

A. Yes. We were getting returns, as I recollect it, from some of these leases. They were not all of them being operated, but some of them were. That is my recollection.

Q. Were you informed at that time as to the extent and nature of the oil development in the vicinity of Bakersfield?

A. You mean the general development.

Q. The general development?

A. No; I do not. I was never in the field myself. I was familiar with the leases that the company had negotiated with individuals and corporations, but I think my information was limited to just about that. I had lots of other things to do.

Q. Now, the next paragraph has perhaps been answered, and is this: "I was told in a general way that this company was organized for the purpose of taking over the oil lands of the Southern Pacific Railroad Company and operating the same." Now, when you made the statement you were told that in a general way, do you recollect whether you were referring to information given you by Mr. Markham or by some one else? [939]

A. No; by some one else. I don't think Mr. Markham gave me any information at all. Now, this is merely a vague recollection. I think that information came around by the way of the auditing department.

Q. By Mr. Mills—Of what company?

A. Well, the general auditing department of the company. That includes, as I understand, the Southern Pacific Company and also the subsidiary companies.

Q. Including the Southern Pacific Railroad Company?

A. Yes sir; I think so.

Q. By Mr. Lewers—Now, you say that “A lease has been made for the term of ten years from the first of January, 1904, with a renewable term of the same period.” By that you didn’t mean that the lease had been fully executed, so far as you knew?

A. No. That is pretty loose language. That was not an executed lease at all. It was a lease that had been offered but not executed.

Q. Now, that lease that you there referred to was the lease dated August 2, 1904, that has been introduced in evidence?

A. Yes sir.

Q. And you understood that that was to date from the 1st of January, 1904?

A. That seems to be the understanding in this letter.

Q. Now, you add, “The lease is made by the Southern Pacific Railroad Company to the Kern Trading and Oil Company, and covers all the lands now in the ownership of the company that either are or are supposed to be oil-bearing.” That was your understanding at that time, was it?

A. Yes sir.

Q. "The consideration for this lease is a royalty of one-tenth of the gross product or, 'one tenth of the gross amount of moneys received from the sale of said minerals, substances [940] and products.' " In the latter part of that paragraph you were quoting, were you not, from the lease itself?

A. That is a quotation.

Q. "This lease was concocted without any reference to me, and it has now been sent over for me to execute on behalf of the Southern Pacific Railroad Company." What did you mean by that?

A. Well, it means that I was taken by surprise. I didn't know anything about this lease—of its being in preparation. I was wholly unprepared when Mr. Markham brought it to me. I didn't know anything about it.

Q. Now, it was your understanding, was it, at that time, that whatever duties you had here in connection with the land department were derived by direct authority from Mr. Cornish?

A. Yes sir. That is the fact.

Q. And that was the instruction which you had received when you first came out here to reorganize and consolidate these two land departments?

A. That was the instruction, and that was insisted upon from the time I came until I returned.

Q. Now, at the time when Mr. Kruttschnitt asked you to assume the duties as acting land agent, were you informed that any change would be made in the control over your actions?

A. No sir.

Q. And your understanding was that the same situation continued?

A. The same situation continued. It was rather peculiar, but I came out here by appointment of Judge Cornish, to report to him; he in turn was loaded with the responsibility for this reorganization, by Mr. Harriman.

Q. By Mr. Mills—Was Mr. Harriman an officer of the Southern Pacific Railroad Company at that time? [941]

A. Of the Railroad Company?

Q. Yes sir.

A. I can't say as to that. I don't know.

Q. Well, what was he as to the Southern Pacific.

Mr. Lewers—You will have ample opportunity, Mr. Mills, to inquire of the witness. I would rather you would not interrupt the answer.

Mr. Mills—Well, it would save a little time.

A. He was president of the Southern Pacific Company. (Preceding record read by the Examiner.) I came out here with instructions to report to him everything. I was told at the same time that I of course had no official connection out here and the task was a pretty delicate one as it would in the end require consolidation and letting out people and all such things, and the instruction was to get along the best I could. He didn't think I would, but then to do the best I could. And he said that he would send to Mr. Kruttschnitt a letter, he being the official

head here; that undoubtedly I would require an order occasionally to be issued and I would have to have some co-operation here locally, and that Mr. Kruttschnitt—he would arrange with him that when I needed anything I would go to him and get it. He furthermore said that between Mr. Kruttschnitt and Mr. Herrin there was probably some—each was a pretty strong man in his way and was holding onto the reins of authority as strongly as they could, and be careful not to go to one more than I would to the other, but if I had to go to anyone, had to make a choice, why to go to Herrin.

Q. By Mr. Lewers—Now, what I am getting at is whether, after you were sent out here and when Mr. Kruttschnitt requested you to take over this other work, any modification was made, to your knowledge?

A. Not to my knowledge. The relation as it existed when [942] I came was always insisted upon by Judge Cornish.

Q. But prior to the time when you took charge of the land department as acting land agent do you know to whom Mr. Jerome Madden reported?

A. I think he reported to Mr. Kruttschnitt.

Q. That is, Mr. Kruttschnitt was here as general manager at that time?

A. As general manager. He didn't report to New York. None of the land agents did at that time.

Q. So that your position was entirely different, so far as your controlling authority was concerned, from that occupied by Mr. Madden?

A. Yes; mine was very complex. If I had been relieved from one or the other it would have been very much easier; it would have been better all around. If I had been transferred right to the Coast here and reported here things would have gone very much smoother.

Q. Now, proceeding with the letter to Mr. Cornish of September 3, 1904, on the second page you say, "I don't know that there is any particular objection to it, as perhaps one-tenth of the product may be fair. The company now receives one-fifth in some cases and in other cases one-eighth, and this is at a still lower rate. However, I do not object to that. I am, however, somewhat slow about signing this document and tying the railroad company up for a period of years." Well, had you been convinced by anyone or as the result of investigation that perhaps this ten per cent royalty was not so unfair?

;

A. No; but I realized my position here—a new man injected into this situation here—and I realized in all fairness that I might be mistaken about that, that there might be reasons, and good moving reasons, and good business reasons, [943] why one-tenth royalty should go, but I didn't know anything at all about it and I was kept in the dark, as I have stated, all along. I hadn't the means at hand, either from discussion or information from anyone or any source, to lead me to decide that question. I intended to leave that with my superior to decide.

Q. What was your own individual opinion at that time?

A. I don't think that I had enough information at that time to form an opinion which I should insist upon. That is the reason I put it in that way.

Q. Now, you proceed, "Of course I know that it is for the benefit of the Southern Pacific Company, but there is one feature which seems to me to be important. Inasmuch as the lease is made by the land department and the head of that department is taking the responsibility therefor, it does not seem proper that the Southern Pacific Railroad Company shall have nothing to say in regard to the disposition of its royalty oil. The lease provides that the oil may be sold and the one-tenth of the moneys received be turned over to the land department. It leaves the matter entirely in the management of the Southern Pacific Company, or the Kern Trading and Oil Company, I don't know which. In all events it is possible for some men not connected with the land department, nor with the Southern Pacific Railroad Company, to make a price on royalty oil belonging to the railroad company and sell it. There is no provision in the lease that the price to be received, in case the oil is sold, shall be the market price, or any other price. You can see that there is a wide open door for the disposition of the land department property at ruinous prices, thus depriving the land department and the bond-holders of a fair return for their property." Now, did you at that time consider that as a serious objection? [944]

A. It was serious so far as I personally was concerned.

Q. That is what I am getting at. As you looked at it individually?

A. I had to look at it in a very restricted area. I knew nothing beyond the bare facts that they had submitted to me. I knew nothing about the matters of policy or necessity. Nothing explained to me. I was simply thrown upon my own resources and asked to take the responsibility of making this long lease on these terms. And all I wished in that case was that all of these different matters should be put forth in the light in which they appeared to me and then let my superior officer take the responsibility. I didn't feel like taking it myself, from the lack of information—necessarily so, because I had been here less than six months at that time.

Q. Well, had you sent a copy of this proposed lease to Mr. Cornish?

A. I think not. I don't think I had. I had written him as these letters show.

Q. Now, had you made this objection with reference to the taking the matter out of the hands of the Southern Pacific Railroad Company to Mr. Markham in any of your discussions?

A. I don't remember whether there was anything said in the letters about that.

Q. Well, whatever may have been in the letters, do you remember any conversation in which that was brought out?

A. I don't know that I remember anything specifically on that subject. We had several discussions, but Mr. Markham was not disposed to discuss very much in regard to this, and I don't remember whether Mr. Markham made the suggestion that it was a family matter and I need not take any trouble about it. I intended to take trouble about it so long as I was the man who was going to be responsible for it. It looked to me like [945] a very serious thing for a man who was less than six months in as complicated a position as that is, and without any information except what he could glean, to take the responsibility for such a lease as that.

Q. Now, you proceed, on page 1775, along the same line, "I feel that it is incumbent upon me to look somewhat into this instrument and into the future. I know that it is hardly probable, but still it is possible, that the control of this oil company may by some contingency pass out of the present hands, and if it should fall into hostile control the railroad company would get very much the worst of it." Now, that was a serious consideration in your mind, was it not?

A. It seems to me that it was. As I say, it is not at all probable, but one of the possibilities in these days when government interference with every kind of corporate activity is in vogue, when we have the—I suppose the thing I had in mind was the action of the United States in regard to the coal roads. That was a pretty live issue with us back

in the Union Pacific. Sometimes you might find yourself divorced from your source of supply of fuel; and that is what I had in mind there, and it seemed as though it were a reasonable inquiry to make as to whether the necessities of the railroad company in such a contingency had been carefully thought out and provided against in that lease.

Q. And you had not received definite information as to what the circumstances were, had you?

A. None at all.

Q. You say that Mr. Markham was not disposed to discuss the matter?

A. Not discuss land matters very much.

Q. Why was that?

A. Well, Mr. Markham, I think believed that the land [946] matters were not very important—they were not railroading. That has been the difficulty all along. The Congressional land grants attached to large railroad companies have always been looked upon by the managers of the companies as a kind of—well, I don't know; a sort of a vermiform appendage that might just as well be cut off, as though they were a nuisance and a burden and drag upon railroad management and operation, and therefore didn't require very much attention, and that most any fool could run a land grant. That last has been the policy of almost every railroad in the country. Now, the situation in regard to these quasi-public lands has become complicated, serious, and even dangerous, in the last ten years, so that it requires

a great deal more thought than Mr. Markham dreamed that it did, and that is why I wished, not to control him, but didn't want him to go and tumble into a hole, as I was very much afraid he would, and as to any friction between us that was the cause of it. He could not see it and didn't have time to bother with it, and would not. At the same time, when any man came in to talk with him about a matter he would talk with him, agree with him, and after the thing was all over, it came up to me, to ratify it, and sometimes I would not ratify it because I felt very sure that it was not the thing for Mr. Markham or the road.

Q. Still, was Mr. Markham impatient concerning your refusal to follow his suggestions?

A. Mr. Markham was one of the most pleasant men I ever met. We didn't agree as to these things—not that he was short, but he was pretty positive.

Q. He was insistent upon his views?

A. Oh yes, he was insistent upon his views and I could not make him see it my way always.

Q. And that is an explanation of the statement that you [947] made on direct examination that you had quite a number of disputes about the matter?

A. Yes; yes.

Q. Now, you proceed, "As I have already stated, this matter has been hatched for my signature without submission to me or without consultation. I know the answer, in case the question was raised, would be that it is all a family matter and that I

need not concern myself about it." Now, I understand you to say that that suggestion may have been made by Mr. Markham?

A. Yes.

Q. "However, I take it that you are somewhat interested in this matter, and I want your advice as to what you think better be done to protect us against future complications. Do you think it would be wise and expedient and would it serve the purpose of protection if I were to demand action of the board of directors of the Southern Pacific Railroad Company ratifying and confirming the lease as it stands and directing the land agent to sign the lease? It seems to me that some such action is not only desirable, but necessary, inasmuch as it conveys control of the most valuable lands in the grant for a long term of years." You received no answer, by way of letter or telegram from Mr. Cornish, did you?

A. No sir.

Q. And you didn't see Mr. Cornish personally until some months after this letter was written?

A. Three months, probably.

Q. Now, did he, in the conversation you had with him when you did see him, refer to this letter?

A. Yes; he had been thinking that letter over a great deal.

Q. Did he have the letter before him?

A. I think so. That is my recollection. We had the lease [948] and the letter, and I brought everything else I had along.

Q. And you had your copy of the letter then, had you?

A. I had my copy and I had all this other material that I had received meantime.

Q. Had Mr. Cornish received any information concerning the matter from any other source?

A. That I don't know. I wanted some lead from him, but he was a very secretive man and he wanted to avoid every particle of trouble he could. He never wrote a letter, and it was frequently that matters here became acute and I could not get anything out of him. He never would go on record about anything by letter if he possibly could avoid it; and so I spent a great part of my time running back and forth between here and New York. In all the years I was there—I suppose I spent half of my time down there in the five years I was here.

Q. And then did he, in that interview or any other interview you had with him concerning this matter, inform you that he had received any information from any other source?

A. I think not. I don't think he had received any information. If he did he did not say anything about it.

..

Q. He discussed with you, did he not, the objections which you had raised to this lease?

A. Yes.

Q. And you went quite fully into that matter with him, did you?

A. Oh, yes; we went into it very fully, because

I had no desire to block anything out here, I simply wanted to be relieved of the responsibility, and he of course didn't want to be placed in the position of standing in the way of any action out here, but he didn't know anything about it. So I understood him. He did not know enough about it to direct anything to be done in regard to it, and I gathered from my [949] discussion with him at that time that he was as much in the dark as I was.

Q. That is, he told you that he knew nothing about it?

A. He knew nothing about it, and that accounts for his positive instructions, which was an unusual thing for him to give. He generally left you to work out your own salvation and not come to him, unless it got where nothing could be done.

Q. Now, did you, in that conversation, call his attention to what you refer to in this letter, the danger of the company, Southern Pacific Railroad Company, losing control of this land?

A. Yes; I think we touched on that, but I don't remember of anything particularly from him on that subject. I don't think those things appealed to him as much as they did to me.

Q. Well, was there anything said in that conversation about a meeting of the board of directors as you suggested in your letter?

A. I suggested that, and I suggested it down there, but he didn't seem to think that it was necessary or anything that he wanted to mix up in. This

action was taken by the gentlemen out here, and he was the president, as I recollect it, of the Southern Pacific Railroad Company, and without any information on the subject, and I think that his policy was not to do anything or have anything done until they did bring it up, until they brought him into it. That was the way he worked, and I don't think they ever did.

Q. You say "until they brought him into it". Who do you mean?

A. I mean the gentlemen on the coast here in charge, Mr. Markham and the board, whoever they were. The matter hadn't come to him by any reference, as I understand it.

Q. Now, you say further, in your letter of September 3rd to Judge Cornish, reading from near the bottom of page 1775, "This lease has been lying here for some time during my absence [950] and I may be called upon for it at any time. I would therefore esteem it a great favor if you would give me any suggestions you may have by wire. I can stave off the delivery of this document for some time yet, I think, for the reason that if the knowledge of this lease becomes public property it will probably cause us a great deal of trouble in the United States Land Office and may result in the loss of a large body of adjacent lands which may hereafter turn out to be mineral and oil-bearing. I found on taking charge of this office that a large body of our lands, especially indemnity lands in the Coalinga, McKittrick and

Sunset fields, had been withdrawn by the United States from entry pending examination as to their mineral character. I have worked very hard and very steadily to get the United States to complete its report and dispose of this matter. I have just succeeded in getting the special agent in charge to make a report releasing our land from interdictment." Now, in your conversation with Judge Cornish did you discuss with him the matter I have just referred to, the effect of this lease upon pending applications?

A. Yes. That was the thing that was more interesting to him than anything else. I don't think he bothered himself about those details that I mentioned. I think he thought that was a matter to leave to the gentlemen in charge here. But as to that matter, he was very positive.

Q. Now, at the time when you had the conversation with him in New York, the patent had been issued, had it not? It was issued on December 12, 1904.

A. Yes; it was probably issued about the time I was there—a little before.

Q. Did you know at the time you had the talk with Judge Cornish?

A. I can't tell you whether I knew.

Mr. Mills—I don't want you to be led into any error, but [951] you have stated in direct examination that you were down there in the late fall or early winter.

Mr. Lewers—I don't want to be understood as try-

ing to lead the witness into any statement, because I have no desire to try to catch him or anything of that sort; I want the fact.

A. I think when I speak of "early winter" I would say that in my mind December would be the month that would cover the time that I was there, and when we talked this over; but whether the information of that patent had reached me at that time I don't know, because the patent would be sent direct; if it was issued the 12th it may have been mailed the 13th or 14th and passed me and that information may not have been in hand at the time I talked with him. It may, though. I would not be sure of that.

Q. Now, did you have in mind at that time, from the standpoint of your official duties, the possible selection of any other lands?

A. I don't recollect that. "The possible selection of any other lands"?

Q. In that vicinity.

A. Not unless the lands that were then unsurveyed were surveyed, and then we would certainly attempt to select them. As I remember it, there was a body of land lying south, I believe in that same indemnity, that was at that time unsurveyed.

Q. You knew that, did you not?

A. Yes sir. That appeared on those maps that were made.

Mr. Mills—I believe those lands were not surveyed until 1907.

Mr. Lewers—Oh, yes; there is no dispute about that. They were not surveyed.

Q. You knew at that time that they could not be selected until surveys were made, did you not?

A. Oh, yes. [952]

Q. Now, when you referred to the possible loss of a large body of adjacent lands, did you mean the lands in Township 30-23 or did you refer to some other lands?

A. I assume that I referred to lands in 30-23.

Q. By Mr. Mills—The lands in this suit, or under application, do you mean?

A. Those that were under application.

Q. By Mr. Lewers—That is, when you wrote your letter of September 3rd, these, of course, hadn't been patented?

A. Hadn't been patented; and that, of course, was what I was anxious about at that time.

Q. Now, you say that you worked very hard and steadily to get the United States to accept this report and dispose of this matter. What do you mean by that?

A. I mean I had pounded D. A. Chambers to make him get after the Interior Department, in the first place, to get a detail of some one to examine them, and then to get him to complete his work.

Q. Then you go on and say, "I have just succeeded in getting the special agent in charge to make a report releasing our lands from interdictment." What do you mean by that?

A. I mean by that I was working through Chambers, and got word from him to that effect. I was not working through the agent, because I never saw him or had any communication with him.

Q. "If it becomes known that we have executed a lease of lands interspersed with those already under selection by us, and that the lease is for oil purposes, it seems to me that it will immediately encourage oil speculators to file upon the lands so selected and that the government will have good ground for refusing patent, inasmuch as we practically fix the mineral status of the land by this lease." You understood at the time you wrote this letter, did you not, Mr. Eberlein, that the lease was [953] for oil purposes?

A. I can't say that I understood much of anything about it.

Q. Well, was that your impression, I mean?

A. It may have been my suspicion that it was. But as I have said before, I hadn't a syllable by which to guide myself. These gentlemen were not taking me into confidence at all, and I think it would have been a little too much for me to say then or to say now that all the land that was in that lease was oil land. Some of it was. As to the rest I can't say that I possessed information on which to draw any conclusion about it. If what indirect information I had was correct, the lands were to be transferred to an oil development company, and what I refer to here, badly expressed as it is, is my fear that the

government would take the very narrowest view possible of the situation and simply say, "Here, you, the land agent, land officer of the Southern Pacific, are making a lease of these lands lying here to an oil development company and at the same time you have got an application for lands non-mineral lying adjacent." I simply say that my experience with the Department has always been that it takes very much less than that to make them hold things up and perhaps take things away from you, because a railroad company has very little chance in its dealings with the United States General Land Office.

Q. Is that what you meant when you stated, "Inasmuch as we practically fix the mineral status of the land by this lease"?

A. That is just it. It raises a presumption, and what I was afraid of then I think has been fully confirmed now. It does not say, I don't mean to say, or be understood, that those are oil lands or I thought they were oil lands. I merely say the two acts taken together create a presumption which the government would not be slow to take advantage of. [954]

Q. And was it your belief at that time that that presumption was an improper one, a false one?

A. Yes sir.

Q. Now, turning to page 1793, I call your attention to a note of February 22, 1908, written by you to Mr. Conlin. Where were you when that note was written, if you remember?

A. I believe I was in New York at that time.

Q. And Mr. Conlin was in San Francisco at that time?

A. San Francisco; yes sir.

Q. And what position was he then occupying?

A. Assistant to acting land agent.

Q. Now, at that time, in February, 1908, where was this file of papers, including the lease?

A. That was in New York at that time.

Q. You had it with you?

A. I had it there; had taken it, I believe—The nearest I can fix it was that I took it away from San Francisco with me in 1906, leaving a copy of everything there in the private safe.

Mr. Mills—Have you copies of these papers in your possession?

Mr. Lewers—Of which papers?

Mr. Mills—The papers that he refers to that he took to New York.

Mr. Lewers—I will say that we have found carbon copies of a portion, but we have no copy of these letters to Judge Cornish or of the letter of September 10th to Mr. Markham. In fact, we have only copies of a portion of the files introduced in evidence.

Mr. Mills—I want to state to counsel that I was unaware, at the time these were introduced, that you had any copies whatever. I won't ask you to produce them, if you will waive [955] notice to produce now the copies which you hold.

Mr. Lewers—We will produce them in due time, together with a lot of other things.

Mr. Mills—Then that is all right. If I had known it at that time I should have served notice to produce.

Mr. Lewers—We have no objection to anything of that kind.

Q. Now, after you wrote that note to Mr. Conlin on February 22, 1908, when did you first see it again?

A. When it was produced here in court.

Q. Then that was not part of that file that you had in your possession?

A. No sir, not at all. I had forgotten all about that.

Q. Now, were there any other letters or papers introduced in evidence here that were not obtained from your possession?

A. I think that one of these letters that have been referred to and that attempted lease are all that I had.

Q. You had the plat, did you not, in your possession?

A. Yes, I had the plat with the lease. The plat and these letters that refer directly to this attempted action, and the action of myself and Judge Cornish in this matter.

Q. Now, to get at that more specifically, will you turn to the index to the testimony of May 16th and 17th, where there is a list of exhibits—"Exhibit DD, certified copy of resolution of the board of directors of the Southern Pacific Railroad Company, dated September 2, 1903, appointing Charles W. Eberlein acting land land agent." Was that obtained from your possession?

A. That was not in my possession.

Q. "Exhibit EE, letter Markham to Eberlein, August 2, 1904".

A. I am just assuming these are the same letters that are spread here in full.

Q. They are.

A. If that is the case, that entire list, as I take it, [956] were in my possession and produced in response to this summons.

Q. By "that entire list", do you mean, "Telegram Stone to Eberlein, August 4, 1904, Telegram Eberlein to Stone, August 4, 1904, letter, Stone to Markham, August 5, 1904, letter Markham to Eberlein, September 5, 1904".

A. Now, let me see about that. Yes; that is right.

Q. "Letter Eberlein to Cornish, September 10, 1904, letter Eberlein to Markham, September 10, 1904, letter Markham to Eberlein, September 14, 1904, letter Markham to Eberlein, September 21, 1904, letter Eberlein to Markham, September 21, 1904, letter Eberlein to Dumble, October 7, 1904, letter Eberlein to Dumble, October 8, 1904, letter Markham to Eberlein, October 17, 1904, letter Eberlein to Markham, October 18, 1904, letter Dumble to Bancroft, December 7, 1904, letter Eberlein to Cornish, September 3, 1904"?

A. Yes sir.

Q. Those were all in your possession?

A. Those were all in my possession.

Q. I understand that you testify that June 1, 1908, you resigned your position as acting land agent?

A. It took effect at that time.

Q. It took effect at that time?

A. Yes sir.

Q. For how long a period prior to June 1, 1908, had you been absent from San Francisco, approximately?

A. I can fix it pretty definitely. I was called to New York by telegram from Mr. Harriman early in October, 1907. I arrived there Friday, I think before that Monday when the panic began. I had an engagement with him at that time, and by reason of the upset in financial conditions there I had to remain there until such time as he could see me, and I didn't return here until I think the following spring. I believe it was in March, [957] I can't fix that off-hand.

Q. That would be March, 1908?

A. 1908. And I settled some things here and went back to headquarters. I had had correspondence with Mr. Harriman in September before, telling him that my work here was finished, that I had rehabilitated these departments as far as they could be and I wanted to be relieved, declined to accept any further service as manager of these land departments, and he called me east at that time and I was attached to that office from that time on.

Q. By "that office" you mean the New York company?

A. Yes sir.

Q. By Mr. Mills—Of what company?

A. Of all these companies; the Southern Pacific Company there—

Q. And the subsidiary companies?

A. And the subsidiary companies.

Q. By Mr. Lewers—Then from some time in March or April, 1908, you were in New York?

A. Yes.

Q. And later you took a trip to Europe, did you not?

A. Sailed on June 6th.

Q. Now, prior to the time when you were called back to New York by Mr. Harriman, as you have related, where did you keep this file, including the lease and this correspondence?

A. My recollection is that they were in my desk there in the New York office.

Q. But I mean prior to that time. When did you take them away from San Francisco?

A. Oh, I believe they were taken away in 1906. Just after they were copied here I took this file that I have produced here with me down there. We didn't have any very good place to keep [958] things here. I considered that very important, so did Judge Cornish, and so I took it down there.

Q. Now, going back to the beginning: After you had learned of this lease, or had been requested to sign it on August 2, 1904, when was it that you began to keep the file concerning this lease separate?

A. I think I kept that together right along. I think it was on my desk right there for some months, right in my desk. This correspondence was coming

and going, and I don't think it was put away at all; I kept it there myself.

Q. Referring to this letter of September 3rd, to Judge Cornish, was that kept with that correspondence?

A. Yes sir.

Q. And for some time you say it was kept in your office in your desk?

A. Right in my desk, under my own hand.

Q. That is, separate from the usual files of the office?

A. Oh, yes; it was never kept there.

Q. What was your reason for not keeping the files out in the general files?

A. I didn't think that was a proper thing to be public property, for the reasons that I have stated. It was a matter that was in abeyance, for one thing, and was kept at my desk while that was on. It was a matter that might come up any day, did come up on almost every day in some shape over the telephone or by letter. I handled that myself; it was not in anybody else's hands. Even when I went away I would not allow anything to be done with regard to that. I considered it a very important matter, because it might not only compromise me but compromise my superior officer, who was responsible to Mr. Harriman and the board back there for land affairs. I felt that inasmuch as he was president of the company it was his business as much as any- [959] body else's and that if anything went wrong he would be criticised as thoroughly as anybody else. Then when the

vouchers began to come in I thought it assumed a pretty serious aspect. I didn't like that part of it at all.

Q. What vouchers are you referring to?

A. I mean the vouchers for pipeage, that were rendered, as I understood it, in accordance with the terms of this supposed lease. Now, that was done without any discussion of the matter with me at all, and showed a disposition to jam that thing through regardless of anybody, and it behooved me to be very cautious.

Q. That is, were you afraid that vouchers might be recognized by some clerk in the office?

A. That is exactly what I was afraid of, and I took very good pains to instruct those in the office who might come in contact with anything of that kind that approval in any way of that lease, or any voucher or anything by which we would be held to have ratified and confirmed that lease, would be met by immediate dismissal, and they were very careful.

Q. Now, when you went to New York, either in December or in January, in 1904 or the first part of 1905, whichever it was, you took this file with you, did you not?

A. I did.

Q. And when you returned you brought it back?

A. Yes sir.

Q. And where was it kept when you brought it back?

A. When I brought it back I got a box in a safe

deposit vault of the California Safe Deposit & Trust Company and kept it there.

Q. And how long was it kept there?

A. Kept during that year; and, for some reason or other, possibly brought up to add something else, or something, and [960] happened to be in the office at the time of the fire. That seems to be the case, for the reason that the letter to Judge Cornish was not brought along with the file for some reason or other but remained in that safe and was not burned.

Q. That is, your carbon copy was found in the safety deposit box of the California Safety Deposit & Trust Company?

A. Yes sir. That accounts for its condition, which is not carbonized.

Q. Now, after the fire where was the rest of the file found, did you say?

A. We had a steel box or safe in the vault. I think it had four compartments, four doors. And in that safe were kept—well, I kept some personal papers of my own in there, this file, and Mr. Stone had access to that particular compartment with me. I think we had two compartments there in which we kept papers that were not kept in general files.

Q. Now, after the fire, were you present when that vault was opened?

A. No sir, I was not.

Q. Who delivered these papers to you?

A. I can't recall that, because I was sick.

Q. That was when you had pneumonia, was it not?

A. I was just recovering from pneumonia, and I had a pretty bad shaking up during the fire and was laid up in Alameda for some days. I didn't come to this city at all for some days. And Mr. Stone was very much knocked out. So that things devolved largely on Mr. Conlin, and that vault was examined on Monday; Mr. Conlin and another employee came over here on Monday after the fire and found cracks around the steel door, from which smoke was coming, and under my orders they went over and attempted to stop the combustion inside by sealing up the crevice with cement. And the next day it had broken out in [961] another place and we went to the chemist of the company and he examined it and finally on Thursday, I think it was, he advised that they attempt to break in and try to save something, because combustion was going on in there and they could not tell the extent and things were being entirely destroyed. And we discovered at that time that the vault was just a sham, just a steel wire stretched from floor to ceiling and cement about an inch thick pasted over outside of it. And they battered the side of it down and made a rush to get what was in there, and all the wood-work collapsed and precipitated the steel cases with all their contents into the burning pile and the destruction was just about complete. They could not save anything. The only thing that was saved, that I remember or know of were the contents of this same steel box, in which, of course, there was no—very little combustion, and it didn't receive any air from the outside. When it

cooled off some days later it was opened. But I was not present at the time.

Q. Who opened the box? Do you know?

A. I don't know that, because I had an assistant at that time by the name of Kelly, and Kelly and Conlin and several of the other boys were here and took charge of it, and which had charge of that I don't know, but they were there when it was opened.

Q. Did you see the contents of that box before copies began to be made?

A. My remembrance of that is that those papers were brought out in a carbonized and very fragile condition and had been pasted on sheets when I got there, or attempted to be; and I directed my stenographer to make copies of those, and I remember his coming to me afterwards with a pile of something that was—oh, just bits—and asked what he should do with [962] it, and they were in such condition that it wouldn't have been any use at all and I understood it was the remains of this file.

Q. What did you tell him to do with it?

A. Oh, just throw it away. The stuff he brought me was absolutely of no use. I can't say definitely whether it was just this, but I understood that was the remains of this file that he had been copying under my orders.

Q. Now, did you check over the contents of that box in any way to see whether anything was missing, or check over the copies after they were made to see whether anything was missing?

A. No; I don't think I was present at the time be-

fore the copies were made—I may have been—and brought to me; but the work was done under the immediate direction of Mr. Stone and the copies were made and compared and brought to me. That is all I remember of that particular matter.

Q. At the time they were brought to you did you make any examination of them?

A. No more than to read them over.

Q. Well, at that time did you determine whether all the letters had been saved and copied or whether any were missing?

A. We were so topsy-tervy in those days that I may not have given that much attention, but I just assumed from the stuff that was brought to me that it was the file that had been there. I can't see any reason why it should not contain the letters that were in the file.

Q. Was it your impression at that time that it did contain the letters that had been in the file?

A. That is what I think now. I have no reason to suppose anything else.

Q. After you had received those copies made from the charred remains what did you do with them? [963]

A. I kept those in my own possession. Just where I kept them I can't tell you, for the reason that for weeks we were crowded into a room on San Pablo Avenue in Oakland. I think there were some fifty people in that one room, and fourteen typewriting machines and two multigraphs, and if there had just been straw on the

floor you would have thought you were inside of a menagerie, from the way it smelled. Those are the conditions under which we lived for several months, and the care and work we kept things in I can't begin to tell you now. We had no safe deposits as I remember and we kept things as best we could, and that whole time is a nightmare, and I guess every one in the Southern Pacific was in just the same condition.

Q. After the condition had been removed, that is after you got quarters other than those in Oakland, where did you keep those papers?

A. Those papers went with me, I think in May, to New York. I went in May, 1906, to New York and I didn't return until some time the latter part of September.

Q. And they were with you during that time?

A. They were with me there and I think those were left there; that is my belief now, that they were kept there because they were safer.

Q. That is after you returned in 1906, was it? You went to New York what time in 1906?

A. May, 1906.

Q. And were there until what time?

A. Some time in September, 1906.

Q. And on your return in September, 1906, your impression is that you left those papers in New York?

A. Yes; left there for safe keeping.

Q. And where were they kept there? [964]

A. In my desk.

Q. And when did you return to New York, as nearly as you can fix it?

A. I don't think I was in New York until the following fall.

Q. The fall of 1907?

A. 1907.

Q. And had the papers remained in New York all of that time?

A. Yes sir; I think they remained. We had copies here.

Q. You had copies of them?

A. Yes; left them here for Mr. Stone's guidance.

Q. And where were those copies kept?

A. Mr. Stone must have kept them until some time when we had some vault space. I can't tell you about that, because the details of the office management I was obliged to leave to subordinates. I was loaded with too many things and was kept moving around too much. But as to these original papers, especially that original lease, I knew that Judge Cornish attached very great importance to that and I took it down with me and it was kept there. I am very sure it was kept there right along.

Q. But was there a copy of that lease kept in the San Francisco office?

A. Yes sir.

Q. Together with copies of all of the other papers?

A. Of all the other papers I had.

Q. Do you know what has become of those other copies? Have you ever seen them since?

A. I have seen them since while I was here in 1907.

Q. Well, did they remain here when you turned over the office to Mr. Conlin? [965]

A. Oh, yes; must have been.

Q. Have you seen them at any time since that?

A. Oh, no; I have not been in the office since early in March, I think, 1908. And I don't know that I saw them at that time, because I was here a very short time. But they must be in the office there, because I had that done so as to leave Mr. Stone in full possession of the facts, so he could refer to anything, and I believe there was a duplicate made of that map at the same time.

Q. Well, are you certain that there was a duplicate of the map, lease and all this correspondence kept here?

A. Oh, yes; I am positive there was right here, with these papers, a carbon copy of that lease, and the reason it was made was that there should be a copy left in the office for the protection and information of the office.

Mr. Lewers—Have you any other papers that you have not produced yet, Mr. McCormick?

Mr. McCormick—No sir; we told you every paper that was given to us with the exception of one paper we have now. That is a typewritten copy of the lease, and it was at the hearing in Los Angeles.

Q. Is this the paper you have reference to, Mr. Eberlein?

A. That is the copy I have referenec to.

Q. You are now referring to Exhibit YY?

A. Yes sir.

Mr. McCormick—Mr. Mills wanted to save the original as much as possible and asked you to stipulate to put in a copy in its place, and this is the copy that was put in.

Mr. Lewers—That explains that. But have you in your possession this duplicate file, or any portion of it, of letters?

Mr. McCormick—no sir. [966]

The Witness—I assure you that that duplicate is or should be in the safe of the land department.

Q. By Mr. Lewers—Now, in that connection were there not a large number of papers pertaining to the Southern Pacific Railroad Company indemnity lands kept in files in the office while you were in charge?

A. You mean filing cases?

Q. Filing cases in the shape of a large book that opened on the end?

A. What kind of papers?

Q. Pertaining to the Southern Pacific Railroad Company's indemnity lands?

A. Well, I don't identify anything from that description. We kept a lot of—As far as those office details are concerned, I am at a loss. I can say, though, that I ordered steel filing cases that were kept in the vault, where all contracts, leases and stuff of that kind was kept. As to these papers referring to indemnity lands, I don't know what you mean.

Q. Perhaps I have not made myself clear; but, first of all, do you recollect whether, during the time

you had charge of the office, any use was made in the department of these filing cases that are in the shape of a large book and that open on one end or would open corresponding to the edge of a book?

A. I don't think I can fix the thing in that way. Our filing system, as I recollect it, there, was the keeping of subjects, and they were pinched together with some kind of a clasp. Now, what they were kept in I don't know. I called for files and they were brought in. I rarely saw the workings out beyond.

Q. That was a detail that you left to others?

A. I had two assistants, and I held them strictly up to keeping the office going. I had to leave a great deal to them. [967]

Q. Now, did you have any file cover for these papers that you kept in this private file?

Mr. Mills—I don't want to object, but I think you are incumbering the record with immaterial matter, and I will have to object if you continue this any longer.

Mr. Lewers—I think you will find it will be very material. I will state the purpose of it if you desire.

Mr. Mills—I wish you would.

Mr. Lewers—The purpose is to show that subsequent to the time when Mr. Eberlein left here there was probably in existence a certain file and that that file has been removed by some person other than Mr. Eberlein from the file.

A. I will just say that we did have a system, as I recollect, there, and I—I think a manila folder something like that, folded there, and things were slipped

in, and on the outside an endorsement—that was done in some cases I know. Whether in this case I don't remember.

Q. Well, did you have any such folder for your private file?

A. I don't remember that, but I think it is altogether likely, to keep these papers all together, keep them from becoming separated.

Q. I call your attention to the letter Exhibit XX, from Mr. Calvin, of December 26, 1907, and particularly to the file-mark, "B, 30, 20, 22", and I will ask you if you know whether that was a file-mark employed in your office or was the file mark on the letter as it came from Mr. Calvin's office?

A. Well, I would assume that that was a file mark that was put on in the land department. It would hardly be on there coming from the other office, though that I can't say. It does not mean anything to me. I don't know.

Q. Now, I call your attention to the letter written by you on October 7, 1904, to Mr. E. T. Dumble, marked on the top, [968] "From file No. 47." Do you know what that file is?

A. No, I don't.

Q. Do you remember the system of file numbers that you had in your office at that time, or did you have anything to do with that?

A. I don't think I had anything to do with it. I know that the filing system was first class bad, I thought, and we changed it several times. But those details I don't know anything about.

Q. Then are you able to state whether you had a file in there "No. S-60"?

A. No. That means nothing to me. I don't know whether that ever came out of the land department. "Records McKittrick, Coalinga oil fields." That may have been something Mr. Stone inaugurated without reference to me, or my knowledge. I don't know what it means.

Q. The card which I have just shown you and which you have referred to is the one marked "Defendants' Exhibit No. 1", is it not?

A. Yes sir.

Mr. Mills—Was that offered in evidence?

Mr. Lewers—"For identification". It will be offered in evidence.

Q. Now, was your private file—I am not referring to the duplicate—returned to San Francisco at any time before your resignation in 1908?

A. You mean these papers I have brought in here?

Q. Yes.

A. I think not. I don't think it was. I don't think there was any necessity for it.

Q. Then in 1908, while you were in Judge Cornish's office in New York, did you have any other files belonging to the [969] land department, or papers?

A. Oh, there were papers sent back and forth after files there, but I don't have anything particularly in mind. They were sending files on to me continually for one purpose or another. For instance, there would be a demand for information before the board

there in regard to some land matter, very often timber matters. In those cases the files were sent on. I remember a number of cases of that kind. But I think they were always returned.

Q. Now, did you have on hand any files in the New York office that belonged to the San Francisco office, at the time just before you sailed for Europe?

A. I don't have in mind anything that was there. There may have been some things left there that probably were not important or hadn't been returned. I don't know. We had clerks there that looked after that thing.

Q. Well, do you recollect turning over any papers at that time for transmittal to the San Francisco office or be left with Judge Cornish?

A. I have no distinct recollection about that; but I think it is altogether probable that I cleaned out my desk and sent back stuff that was not important at that time, unless they happened to be things that were apt to be called for there.

Whereupon the further taking of testimony herein was adjourned until Wednesday, July 3, 1912, at 10 o'clock A. M. at the same place.

On Wednesday, July 3, 1912, at 10 o'clock A. M., the further taking of testimony herein was resumed pursuant to adjournment: [970]

Whereupon, CHARLES W. EBERLEIN was recalled and cross-examination resumed, as follows:

The Witness—If it is just as convenient for you now, may I offer a correction to the testimony.

Q. By Mr. Lewers—If you have any correction to make, you may proceed.

A. I have testified in regard to the letter on page 1793, written by me to Henry Conlin, dated February 22, 1908. I don't know that this correction is important, but as nearly as I can give dates I want to do it. I find by reference to private memoranda which I have just found that that letter was written in San Francisco and not in New York. Evidently my testimony arose from the fact that I knew I was in New York about that time. The fact is that I left San Francisco on that day, and therefore that note must have been written here.

Q. And that accounts for the fact that that was not written upon a letterhead of the New York office, does it?

A. Yes sir, that does. I came from New York on a hasty trip to break up my house here and move things to New York as I expected to remain there, and I was here a very short time and was very busy. I knew I was in New York that month, or about that month, or about the first, or somewhere in there, anyway, and I thought I was there when I wrote that note. I was here.

Q. Now, at the close of your testimony yesterday I think we had reached a point where you had stated that this private file was in New York in 1908 at the time when you resigned?

A. Yes sir; that is true.

Q. Did you have a desk of your own in the New York office?

A. Yes; I had a room there and a desk which I occupied when I was there.

Q. At 120 Broadway? [971]

A. At 120 Broadway. And in my goings back and forth I left papers behind me. Sometimes I think some papers were left in the safe there, but I don't think these were.

Q. Now, was this file that you had in your desk in New York at that time and which has been produced here, the entire file in reference to this matter?

A. You mean this file that I have produced?

Q. Yes.

A. I believe that is all.

Q. Well, now, was there not some correspondence with reference to claims for pipeage charges sent in from the auditor's office?

A. There may have been, but if there were they must be here.

Q. By Mr. Mills—By here where do you mean?

A. San Francisco.

Q. By Mr. Lewers—But did you not have letters of that kind in that file?

A. I don't think there was. I don't recall it, at least. I will just state generally that my recollection as to files and times is necessarily pretty hazy. I was jerked back and forth between here and New York so frequently, and there were so many things called for down there, and files had to be sent, that I always had to go loaded with a great deal of lumber, because I was expected to answer all kinds of questions when I got there, and my recollection is that there was prob-

ably a vast amount of stuff in the files of the New York office. I believe they were weeded out occasionally and sent back. That was attended to there; I didn't attend to that myself.

Q. Now, after you left New York on June 6, 1908, on your trip to Europe, where was that kept?

Mr. Mills—Which file do you refer to?

Mr. Lewers—There is only one file. [972]

Mr. Mills—Do you refer to the file he had in New York?

Mr. Lewers—Why, certainly. Mr. Eberlein understands, if you don't.

A. That must have been left among my effects there. I left a lot of stuff behind me there in storage.

Q. Well, was it left in the office at 120 Broadway, or elsewhere?

A. No, no; it was in my possession.

Q. And you say you left a lot of your effects in storage?

A. Yes.

Q. And do you remember your getting that file on your return from Europe?

A. I presume I went over a lot of things, because I moved a lot of stuff from there out to Ohio. All my effects that I had there I moved at that time and brought them out there, and that among them.

Q. And did that file remain constantly in your individual possession after that time?

A. Yes sir, until the day it was pried out of me down in Los Angeles.

Q. And you say you went to New York some time either in the fall or early winter of 1904 and '05?

Mr. Mills—I must object to that question, because it is a mis-statement of the evidence.

Q. By Mr. Lewers—It might possibly have been some time in January, might it not, 1905?

Mr. Mills—I object to that question as extremely leading.

A. I know that I was down there around December, and January of that year, and I believe it was December, but I cannot be positive. It is a long time ago.

Q. By Mr. Lewers—How long did you remain there, as nearly as you can recollect, on that trip?
[973]

A. I can only judge by the length of time that it usually took me when I was there, and I must have been there some weeks, I think.

Q. And your headquarters were in the office of Judge Cornish?

A. Yes sir; always. They were my headquarters before I ever came on the Southern Pacific, and there were matters which I had in charge even after I came on the Southern Pacific, and that accounts for my long absences from here very often, and I had all kinds of papers and reports that I had made of everything down there.

Q. Now, had any of these claims for pipeage charges come in before you went to New York?

A. That is my impression now. I can't swear definitely as to that, but that is my belief, that that

is one of the things that was under discussion at that time. The fact that they had come in showed a disposition to not let the matter sleep but to go on with it as a lease.

Q. Well, you had been informed, had you not, that the lease was being treated by the auditor as a going lease?

A. My remembrance is that that is the way I got it. I don't remember any distinct conversation with the auditor about it, but I do remember of those bills coming in, and I suppose there must be files of those bills here in the office.

Q. Now, you discussed that matter, did you—these pipeage charges—with Judge Cornish?

A. Yes sir.

Q. And did you inform him what you had learned as to this lease being treated as a going lease?

A. Well, that is all I could inform him; but that he was informed of, because it was the subject of conversation at different times after that. [974]

Q. Do you know whether he issued any orders to Mr. Markham or to anyone else with reference to recognizing or not recognizing that lease?

A. Not that I know of. I should doubt it.

Q. You never heard of any being issued, did you?

A. No sir.

Q. Did you not have in your possession or in your office in New York, at the time when you went to Europe, or shortly prior to that, many other papers concerning other matters in the land office in San Francisco?

A. Oh, I think there was a considerable accumulation of stuff of one kind and another there. That is my recollection now. It must be remembered that I had been absent from San Francisco practically since September and had only come back here on a very hurried trip, and that I was endeavoring to carry on business in both places, and that of itself accounted for a considerable accumulation of stuff down there; but I believe that the clerks there bunched up a great lot of stuff and sent it back, though I didn't superintend that and can't say.

Q. Did you instruct them to do so?

A. I think so. I think that was the thing I wanted done at that time. But they may have had files that they had kept there for their own or for Judge Cornish's information. That is something entirely within their control and not mine.

Q. Was there not some correspondence with reference to this Kern Trading and Oil lease that you turned over to the New York office shortly before you went to Europe?

Mr. Mills—I object to that question as leading and suggestive.

A. Well, I don't know what it was. If there was I don't remember it at this time. [975]

Q. By Mr. Lewers—I call your attention to government's Exhibit BBB, a letter of December 27th written to you by Mr. Henry Conlin, and to the fact that that letter refers to the copies or a copy of the lease of December 12, 1907. Did you receive a copy of that lease?

A. It would seem so from that letter.

Q. Do you recollect what you did with it?

A. No; I don't.

Q. Was that lease ever recognized by you as acting land agent in any way?

A. No. My only recollection of this is by reason of Mr. Calvin's letter in which he designates it as a "substitute lease."

Q. You understood that to mean as a substitute for the lease of August 2, 1904, did you not?

A. Yes sir. I had forgotten altogether about the date of that, though I had some papers in this file I know now, but it had escaped me altogether.

Q. Did you call the attention of Judge Cornish to this letter of Mr. Conlin's of December 27, 1907?

A. I think we had a discussion of that same subject, and I think I took the Judge's advice as to the matter of recognition. The matter came up, as I remember it, as I was uncertain in the premises, because, if that was a new lease executed in full, as I recollect that it was, though I don't remember now who executed it, but it was executed in full by the officers of the company, it became pertinent for me to know whether that was proper at that time, and my recollection is—Now, this is not definite, but I believe this is the fact—that that word "substitute" was what made it desirable to continue our policy in regard to that, for fear we might be tangled up in some way with that old matter. [976]

Q. Well, now, was any comparison made by you at that time of this new lease, substitute lease of De-

ember 12, 1907, and the old lease of August 2, 1904, as to description?

A. I don't remember of ever having made any.

Q. You had the old lease in your possession in New York at that time?

A. Yes; that was in my possession at that time. As to this I don't recall the fact, only that letter shows that I did receive a copy of it.

Q. Well, independently of that letter, is it your recollection that you did have a copy?

A. I don't now recollect. I do recollect of having some discussion on that subject, that matter of substitute lease. Now, as I say, those recollections are vague, because it came in at a time when we were extremely busy with other things and all during the first of 1908, and until I left, the Oregon and California matters were taking all the time.

Q. Did you turn over the copy of the lease that was sent with Mr. Conlin's letter to Judge Cornish when you left?

A. I must have done so, I think, or it must have gone back to San Francisco with the general ruck of stuff that was there.

Q. Was there any discussion between you and Judge Cornish, after Mr. Conlin's letter was received together with this copy of lease, concerning the two leases, that is, the one that Mr. Conlin sent and the old lease?

Mr. Mills—I object to that question, because the witness has stated that he has no recollection of receiving a lease accompanying the letter of Mr. Conlin.

A. I don't have any recollection of a comparative discussion of that at all. I don't recollect of ever having compared the terms of the leases. If the lease was there, as would [977] seem to be indicated from this letter, I rather think that it didn't get very much discussion at that time except as to that one fact that I speak of. That was the only thing that would engross our attention, because if that was not material then the lease would be all right, I assume.

Q. By Mr. Lewers—You say, as I understand it, that you had long prior to that time discussed with Judge Cornish the matter of keeping the files separate?

A. Oh, yes; that came up several times, and there were reasons why it did come up apart from anything with the Southern Pacific.

Q. Now, did he tell you anything about the danger of vouchers slipping in, or was that discussed between you?

A. Oh, that was discussed, as I remember, the first time we talked.

Q. And was that the reason which he assigned for keeping this lease and file separate?

Mr. Mills—I object to that question, because the witness has gone over that completely yesterday, stating the reasons that inspired that discussion.

Mr. Lewers—Not on cross-examination.

Mr. Mills—He stated the several reasons, as I recall the testimony, why Judge Cornish regarded that as a dangerous file, and to keep them separate, and he enumerated the reasons.

Q. By Mr. Lewers—I will ask the question again: Did Judge Cornish give as a reason for keeping that file separate, the danger of vouchers being slipped in there for pipeage charges?

A. As I remember it, that is one of the reasons. I don't think that was all the reason that was given.

Q. Now, you say you had discussions a good many times with him with reference to keeping that file separate? [978]

A. That came up several times, to my recollection.

Q. And was any discussion had concerning that at the time when this new lease of December 12, 1907, was executed?

A. I don't remember the fact. It may have been, but I can't remember it.

Q. Well, was any inquiry made by Judge Cornish at that time as to where this file was, or was he informed?

A. The Judge knew that I had it, because he had told me to take charge of it and keep it, keep it close, for my own protection as well as his own.

Q. That is, he knew at all times, up to the time when you resigned, that you had that file?

A. Yes sir; he knew it, and, as I say, it was a matter of maybe not frequent discussion, but he asked me on one or two occasions that I have some recollection of—just the dates or probable dates I could not recall—as to whether I had it.

Q. By Mr. Mills—Had the file, you mean?

A. Had the file; yes.

Q. By Mr. Lewers—And did Judge Cornish say

to you in so many words that he desired you to keep that file for his protection as well as your own?

A. He put it on me. He said, "You may have occasion to use that for your own protection".

Q. Did he say against what?

Mr. Mills—Let the witness finish his reply.

A. Against any possible complication that might arise.

Q. By Mr. Lewers—Did he regard that file as valuable as a protection?

A. Yes; I think he did. He considered that lease very valuable.

Q. He never suggested destroying it, did he? [979]

A. No sir; not at all.

Q. Or any of the correspondence?

A. I think not. I never heard such a suggestion

Q. You have testified that Professor Dumble occasionally applied to your office for lists of land or made applications in connection with land?

O. Yes.

Q. Did you ever furnish any information of that kind?

A. Oh, yes; I think so.

Q. When was it that he began making those applications?

A. Well, I think there is a reply to one of those applications in evidence here.

Q. Do you remember which exhibit it is?

A. I think it is in a letter written by Mr. Stone
Mr. Mills—Stone to Dumble.

The Witness—It gives a list of the lands.

Q. By Mr. Lewers—You are referring to the letter of October 8, 1904?

A. Yes sir.

Q. Well, was not that a list that was furnished in connection with this Kern Trading and Oil lease to show the status of the lands in that lease?

Mr. Mills—I object to that as extremely leading and suggestive. The document will show for itself what it is.

A. Well, I don't know. It does not say so here and the only thing that would lead to that belief would be the chronological order of these letters.

Q. By Mr. Lewers—Well, did it not concern land that was embraced, a portion of it, in that lease?

A. I see here in Township 30 South, 23 East. That is in that lease.

Q. That is Section 31 of that township? [980]

A. No; I am wrong. "30-23"?

Mr. Mills—I think there is one section in that lease.

A. 30-23 is here, but it is not in that lease.

Mr. Mills—Yes; there is one section there.

Q. By Mr. Lewers—Was not that letter written during the time when the discussion was going on between your office and Mr. Markham's office concerning the execution of this lease?

Mr. Mills—I object to that as leading and suggestive. The witness has stated that he does not know whether that was in connection with the lease or not.

Mr. Lewers—Well, if you will listen to the questions you will not be interposing these frivolous objections, which are merely for the purpose of delay.

Read the question. (Last question by Mr. Lewers read by the Examiner.)

A. Oh, it was during that fall when the matter was under discussion.

Q. And it was after you had made, or your office had made, the objection that the lease contained a description which was incorrect?

A. Yes; subsequent to that letter of mine.

Q. When did Judge Cornish die, Mr. Eberlein? Do you remember the time?

A. I think he died early in 1909. I think in January, 1909.

Q. It was after you had severed your connection with the San Francisco office?

A. Oh, yes; yes.

Q. And Mr. Harriman died when?

A. I think he died in May, 1909. That is simply recollection. I cannot fix dates or even months. But I think they died, both, in the early part of 1909.

Q. At page 1930 of the record, yesterday's transcript, you were asked with reference to Mr. Markham as follows: [981]

“Q.—Still, was Mr. Markham impatient concerning your refusal to follow his suggestion. A.—Mr. Markham was one of the most pleasant men I ever met. We didn't agree as to these things—not that he was short, but he was pretty positive. Q.—He was insistent upon his views? A.—Oh, yes; he was insistent upon his views and I could make him see it my way always.” Should not that be, “I could not make him see it my way always”?

A. Oh, yes; certainly. The very context shows it.

Mr. Lewers—And, while we are on the subject of errors, I desire to call attention to the fact, so that there may be no misapprehension about it, that at the bottom of page 1847, of the proceedings of July 1st, Mr. McCormick asked the following question of counsel for the defendant: “Mr. McCormick—We also ask you to produce the lease mentioned in the letters which have just been introduced in evidence and marked respectively ‘CCC’ and ‘DDD’ designated therein as the ‘general lease which the Kern Trading and Oil Company holds in Coalinga’ in the one instance and ‘general lease which the Kern Trading and Oil Company holds’ in the other.” As the record appears, no answer was given by counsel for the defense. That is probably due to the fact that there was a general discussion going on and the reporter didn’t catch it. My recollection is that I replied that we understood that the lease referred to in those two letters was the lease of August 2, 1904, and that there was no other lease.

Mr. McCormick—Yes. You further stated at that time that you had no record of that lease either in the way of a duplicate or the original—or a copy of it—in your files; you could not find it.

Mr. Lewers—No, I didn’t say that, because I have found one copy. Where it came from I don’t know.

Mr. McCormick—Would you mind showing us that? [982]

Mr. Lewers—I have no objection, but I haven’t it with me. It is just the same as the other one.

Mr. McCormick—"Other one"? The one of December 7th?

Mr. Lewers—No; the one you introduced.

Q. Mr. Eberlein, have you a copy of the testimony of July 1, 1912, before you?

A. Yes sir.

Q. Will you turn to page 1826?

A. Yes sir.

Q. And, referring to the question beginning at line 19, you answer as follows: "We naturally recognized at least the very ambiguous position in which we would be placed, both of us, by that lease, if that lease were made—and especially if I made the lease, I having also made the selection list which was at that time unapproved".

A. That is corrected in the lines below. I didn't mean "unapproved". It was approved, but not patented.

Q. Well, at the time when you had this conversation with Judge Cornish, had not the patent been issued on December 12, 1904?

Mr. Mills—The witness has already stated that it hadn't been, and the context later shows plainly that it hadn't been.

Mr. Lewers—I am speaking of the time of the conversation.

Mr. Mills—Yes, of the conversation in which he called attention to it.

A. I don't think that was known at that time. It is too far away for me to be positive about anything, but this is my conclusion—not a fact: If that

patent was issued on the 12th—I don't recall the date. You stated it and I have no doubt it is true—the fact of it probably didn't reach me for some time later, because those patents are not always sent promptly.

[983]

Mr. Mills—I think you went into that yesterday.

Q. By Mr. Lewers—What I want to get at is this. When you made that answer in response to Mr. Mills, were you referring to the time when you wrote the letter or were you referring to the time when you had the conversation with Judge Cornish?

Mr. Mills—I object to that question as extremely leading, because the witness has stated that in that conversation with Judge Cornish the patent had not yet issued.

Mr. Lewers—I object to this method of constantly attempting to coach the witness. I desire to get at the facts and not the government's theory.

Mr. Mills—That is the objection I am making to your question, that you are attempting to lead him into a statement that is a palpable error?

A. I believe it refers to the discussion down there in New York.

Q. By Mr. Lewers—Then when you say that the land had not then gone to patent you mean that you probably had not heard of the patent?

A. Oh, I don't pretend to say in that when the patent issued, because I didn't know, and don't know now except what you told me yesterday. These things passed from my mind long ago. I may have known at some time the date of the patent, but it never im-

pressed itself on me at all. That was not important to me. In this discussion I have no doubt that we were discussing it without knowing that fact. If that issued on the 12th of December it must have been some time after that before I learned it.

Q. Now, after you had learned that the patent was issued, you had discussions with Judge Cornish about the matter, didn't you? [984]

A. Oh, these discussions lasted as long as I was in the employ of the company.

Q. And at the time when your office received a letter from Mr. Calvin, on December 27th or 26th, 1907, in which Mr. Calvin stated that he had been unable to find a copy of the lease, did you inform Mr. Calvin that you had a copy?

A. No, I don't think so. I was not here at the time. I don't think I had any discussion. Oh, I may have written him a letter, but I won't be positive.

Q. You have no copy of any such letter, have you?

A. No sir, I have not.

Q. And did you at any time in your official capacity as acting land agent of the Southern Pacific Railroad Company in any way recognize the second lease?

A. No sir.

Q. And you continued your refusal to recognize the pipeage charges, or the lease in any form, as long as you acted as land agent?

A. That is correct.

Q. Even though the patent had been issued long before?

A. Yes sir.

Q. And did you consider the terms of second lease any more favorable than the terms of the original lease as a matter of business policy?

A. I don't remember of ever having read that second lease.

Q. Now, in your letter of September 10, 1904, to Mr. Markham, and also in your letter of September 3, 1904, to Judge Cornish, you make the objection that the existing leases of oil lands are being transferred to the Kern Trading and Oil Company and that a reduced royalty will be received. Now, can you find anything in that lease of August, 1904, that indicates that that is the fact? [985]

A. I assume it is, from the statements in those letters. I have not read that lease for a long time and I could not tell you anything about it now.

Q. That was your belief at the time, was it not?

A. It must have been.

Q. Well, hasn't it been true, as a matter of fact, that under the operation of that lease the Southern Pacific Railroad Company received the same rental that was provided in these individual leases?

Mr. Mills—I object to that question until the witness has the opportunity to read the lease. We have it here in evidence. Let him see it.

Mr. Lewers—I am asking what actually happened.

A. I can't testify to that. I don't know.

Q. As you don't know what was actually received?

A. No; I don't. That would be natural, too, be-

cause those matters were handled, I think directly from Mr. Dumble's office to the auditor's office and what credits we got were credited on the books down there. The books were not kept in our office, nor were they subject to our control. I never saw the books. I organized that bureau and my first month or six weeks here on the ground was largely taken up in that business, but after that I had nothing to do with it.

Mr. Mills—Here is the reference in there. (Handing document to witness.) Here is the letter. (Hands Examiner's transcript to witness.)

The Witness—In my very cursory examination of that I do not see a reference to those leases; but may I ask, is not the land that is subject to those leases—is not that transferred by this lease?

Q. By Mr. Lewers—I will call your attention to the concluding paragraph of that lease, if I may, wherein it is stated, [986] “All of the rights hereby granted being, nevertheless, subject to any and all leases of and rights of way over any part or portion of said described premises heretofore made or granted by the party of the first part”, and ask you whether at the time when you examined that lease in 1904 your attention was directed to that paragraph at the end of the long description of the lands?

A. No; I don't recall it. However, just off-hand, now, I take that to refer to rights of way that then existed for pipe lines and water lines and telephone lines and things of that kind which were being continually granted over the oil lands of the company.

That was one very serious thing we had to deal with—the continual demand for the acquisition of rights of way for one purpose and another.

Q. Then that was probably your understanding at that time?

A. I think so.

Q. At any rate, you did have the impression that this transferred existing leases at a reduced royalty?

A. I certainly did.

Q. And you don't know what the actual practice under the leases was so far as payments to the railroad company were concerned?

A. No. I think that was carried on entirely outside of our department.

Mr. Lewers—Take the witness.

Mr. Mills—Let me ask you if there was not a separate instrument assigning these leases which accompanied the lease to the Kern Trading and Oil Company, which you have in your possession?

Mr. Lewers—No. There was a separate instrument which assigned one or two leases belonging to the Southern Pacific [987] Company. That was all. The Foltz lease I believe it was. I have another request to make that I would like to make at this time. Has the government in its possession any correspondence with the witness George A. Stone?

Mr. Mills—I don't know of anything, Mr. Lewers. I think not.

Mr. McCormick—None whatever that I have seen.

Mr. Lewers—Is there in existence, to your knowledge, a letter written by him to the Department of

Justice or to any other government official in connection with the matters that have been testified to by him.

Mr. Mills—I have heard of such a letter, but I have never seen it and I have as yet never made any search for it.

Mr. Lewers—Will you endeavor to secure that. We desire to have it.

Mr. Mills—I shall produce it if we have it. I thought at first your question related to any correspondence between Mr. McCormick or myself and Mr. Stone.

Mr. Lewers—Well, that is another matter.

Mr. Mills—I have nothing, unless possibly some statement as to when he was coming to Los Angeles, but I don't recall anything even of that nature.

Whereupon the further taking of testimony herein was adjourned until Friday, July 5, 1912, at 10 o'clock A. M., at the same place.

On Friday, July 5, 1912, at 10 o'clock A. M., the further taking of testimony herein was resumed.

[988]

By agreement and consent of counsel the further taking of testimony herein was adjourned until 1 o'clock P. M.

On Friday, July 5, 1912, at one o'clock P. M., the further taking of testimony herein was resumed pursuant to the adjournment:

Whereupon, CHARLES W. EBERLEIN was recalled for redirect examination, and testified as follows:

By Mr. Mills:

Q. I call your attention, Mr. Eberlein, to page 1876 of the of the reporter's transcript, in which the following colloquy took place: "Q—Then the selection of these indemnity lands was part of your plan in protecting the interest of the company, was it? A—Yes. Q—And who ordered or directed that this selection be made, list 89? A—I ordered the selection list to be made. Q—By Mr. Lewers—Was that done at the instigation of Mr. Stone? A—'At the instigation'? Q—Yes. A—No. I rather think I instigated Stone." Now, I ask you whether at the time you came into the land department of the Southern Pacific Railroad Company, defendant, which you stated was about August 12th, and during the same month this selection was made up, you had any specific knowledge of these particular lands at the time that list was made?

A. No sir. It would be impossible for me to have had.

Q. Will you state the circumstances, then, of how this list came to be made up, so far as you recollect it?

A. It seems to me I have testified as to that.

Q. Well, I will ask you the specific question: Did you instigate Mr. Stone to make up this particular list 89?

A. It seems to me the word "instigated" is an improper one [989] to use in that connection.

Q. Well, it was suggested by counsel for defendants and you adopted it.

A. Well, I don't think there is any instigation

about it. The fact, as I have already testified to, is simply the carrying out of the general policy of keeping the surveyed lands selected, and that is how this list originated, I believe.

Q. Did you give any specific orders to Mr. Stone to go and make this particular list of lands?

A. Do you mean by "this" the particular descriptions on that list?

Q. Yes; the particular descriptions.

A. No.

Q. Either by sections or townships?

A. No sir. I would not have known them if I had been told. It must be remembered that I was as green about the land affairs of the Southern Pacific, almost, as it was possible to be. I had given no attention to land matters particularly. I had been engaged since I came there in organizing the land accounts bureau, getting the machinery ready and set in operation that I was sent there to do, and what you are talking about was something that had not occurred at that time.

Q. When was the first notice you had of the particular list? Was it presented to you by Mr. Stone?

A. Yes.

Q. Was that the first notice you had of the specific lands mentioned in that list?

A. I didn't read the list at all. It wouldn't have done me any good to read it. I was depending entirely on Mr. Stone's knowledge of the lands, which he had been over, as I remember his having told me, that qualified him to give me the information on

which I could make a non-mineral affidavit. [990]

Q. You did not, as I understand it, then, pick out these particular tracts of land, or know anything about them, or remember of ever having heard of them before?

A. Never. I knew nothing about the records of the office at that time. I could not have made up that list at the time if I had wanted to. Mr. Stone was familiar with that work, and had been for a long time, and he continued to do that work in that way as long as I was connected with the department.

Q. Did you, on that occasion, or any other occasion, to your recollection, send Mr. Stone, or anyone else, out to make any specific examination of these tracts of land?

A. No sir; I did not understand there was any made.

A. At no time, you say?

A. Not that I know of.

Q. Now, did you ask him, at the time the non-mineral affidavit was presented to you, as I assume it was, when the list was presented—was it?

A. The list was presented?

Q. The non-mineral affidavit.

A. Yes sir.

Q. When he presented you that did you say anything to him at all?

A. I asked him about the character of the land; yes sir.

Q. Now, after that time, on any other lists of land, while you were the acting land agent,—was it your

custom, after you became more familiar with the land grant, to make more specific examination of the tracts of land which were about to be selected by the company?

A. Oh, we afterwards had field men and made considerable selections as I remember it, under Mr. Stone's direction.

Q. I am asking about the general policy of your administration—whether, subsequent to this list, it was your custom [991] to send out parties to examine land specifically?

A. I don't remember, have no recollection, of the lists, the dates they were made, or anything about it. As I say, that was the branch of the work that was entirely delegated to Mr. Stone. Somebody had to do it. It would have been as impossible for me to attend to those particular, specific matters, as it would for the president of the Southern Pacific to grease the wheels on the engines.

Q. Now, you have stated, and I am quoting solely from my memory, as I have not the reference here before me, that there was no co-operation between Mr. Dumble and you office during that time? I think I have stated that correctly.

A. During what time?

Q. During that year, 1904—or during 1903.

A. I would amplify that and say there never was any co-operation.

Q. Well, I don't ask for any amplification. I am calling your attention to this particular statement. Do you know, as a matter of fact, or do you now wish

to be understood as saying, that Mr. Dumble never came into your office and had a talk with Mr. Stone with respect to the selection of lands yet unpatented which he believed to be mineral and oil-bearing?

A. Well, all I can say is that I know nothing about it. I have no knowledge of it, if he did.

Mr. Lewers—Nor has anybody else. It is a gratuitous suggestion on the part of counsel, and is not redirect examination.

Q. By Mr. Mills—What did you refer to, Mr. Eberlein, in one of your responses to a question, as “a joker” in the resolution of the board of directors appointing you as land agent? I merely want to clear it up. I don’t want any amplified statement. What did you mean by it, is all I want. [992]

A. I simply referred to the language inserted, which I would not wish now to be understood as having been placed in there in any surreptitious way. I merely referred to the language which makes the grant of powers to me subject to the approval of the president or any vice-president; and my reference to that as “a joker” is by reason of the peculiar and uncomfortable “mix-up” that succeeded—I called attention to that matter to my own superior officer—for the reason that it hampered and impeded the work of the land agent. He could not do the work as he should.

Q. How was Mr. Stone’s appointment brought about as assistant to the acting land agent?

A. Simply that I appointed him and took the ap-

pointment over to Mr. Kruttschnitt to ratify, which he did.

Q. Now, you have referred, on examination by Mr. Lewers, to a letter which was received by Mr. Kruttschnitt, written by Mr. Stone, in which Mr. Stone threatened to lay this matter before the Department of Justice or give it to the press, and you have stated, "So, nothing was done", in respect to that letter. Was there anything done after the receipt of that letter?

A. Well, let me inquire. You say "this matter"?

Q. I refer to the matter contained in the letter, whatever it was.

A. Oh, it had no reference to this particular contention here.

Q. I am talking about the subject matter of the letter.

Mr. Lewers—I think the witness should be permitted to finish his answer.

Q. By Mr. Mills—Well, I want to make myself clear. I am speaking of the subject matter of the letter which Mr. Stone wrote, whatever it was. [993]

A. The letter was written.

Q. Please answer my question whether anything was done in response to or in connection with that matter.

A. Yes.

Q. In reference to looking it up.

A. It as referred to me by Judge Cornish, with the request to know what he meant. I couldn't tell him what he meant. It was a vague threat that he

would lay matters in his knowledge or possession before the Department of Justice, and give them to the press. I couldn't tell what he meant. I knew of nothing, and I didn't attach much importance to it; but I did communicate with Henry Conlin, who was my assistant, asking him to find out, if he could, what Mr. Stone meant.

Q. Well, did you write him, or wire him?

A. I suppose I wired him.

Q. You wired him.

A. I naturally would, I think.

Q. Did he ever make any report to you as to what it was, if you recall now?

Mr. Lewers—Have you that telegram, Mr. Mills?

Mr. Mills—No. I ask you if you have.

Mr. Lewers—No. I think you have those papers.

Mr. Mills—I have no papers whatever—They have not been introduced—that I know of, now, excepting what I have already announced to you.

A. I don't recall any report. I presume he answered me, but if he did he could not give me any information; because it made no impression on my mind if he did.

Q. As nearly as you can recall now, Mr. Eberlein, and simply for the purpose of having it correctly appear in the record, when did you first become acquainted with Mr. Dumble, who has been referred to here as consulting geologist? [994]

A. I have cudgeled my remembrance for the answer to that question and I am extremely vague. Remember, it was a long time ago. And Mr. Dumble,

my belief is, as nearly as I can fix it in my own mind, was not a resident in San Francisco during the first part of my acquaintance with him or knowledge of him. I understood that his headquarters and his home were in Texas. As nearly as I know, or can fix it, I probably didn't know Mr. Dumble before 1904, early in the year, probably.

Q. Early in the year 1904?

A. Probably early in the year 1904. I would like to make an inquiry, for the purpose of fixing something in my mind.

Q. Certainly.

A. If Mr. Shoup can tell me, do you remember whether we moved from the Wells-Fargo Building on Second and Mission streets in 1904? Was that the year? Was it December, 1904, that we moved from there into the new quarters.

Mr. Shoup—I could not answer that question without looking it up.

The Witness—If other men can't remember these things, perhaps I may be excused.

Mr. Shoup—I will try to look it up and tell you.

Q. By Mr. Mills—In your letter, dated September 21, 1904, from Mr. Eberlein to Mr. C. H. Markham, and introduced in evidence, found on page 1759 of the reporter's transcript, you make the statement, "I didn't wish to blunder along and bring myself into collision with Mr. Dumble as to matters as to which it would be his right and not mine to decide." As early as the month of September, at least, 1904, you had met Mr. Dumble, had you not?

A. Yes; I certainly had.

Q. And knew who he was?

A. Oh, yes. [995]

Q. On page 1746, there is a letter introduced in evidence addressed to W. D. Cornish, in which you say, on September 10, 1904, "For your information I beg to hand you copy of letter of this date to Mr. Markham setting forth the objections to the lease of Southern Pacific Company to Kern Trading and Oil Company." Now, on page 1748, a letter dated September 10th, addressed to Mr. Markham, and I ask you whether that last letter was the letter which you refer to in your letter to Judge Cornish.

Mr. Lewers—That all appears in evidence, Mr. Mills.

Mr. Mills—Well, I was not certain about it.

A. Yes sir; that must be the letter that is referred to.

Q. Then you sent a copy of the Markham letter of September 10th, 1904, to Judge Cornish?

A. I did.

Q. On the same date?

A. Yes sir.

Q. Now, at the time of your visit to New York, when you talked over the subject matter of this lease with Judge Cornish, you had with you the file which you have referred to here, containing this correspondence and lease. Do you know whether Mr. Cornish at that time had in his hands these two letters, the letter which you wrote him September 3rd and the

copy of the letter of September 10, 1904, to Mr. Markham?

A. I don't know how I could know that fact, Mr. Mills, without having some preternatural ability to look back. But Judge Cornish was a lawyer, and I think that it was his invariable practice to have all the papers before him. In all the matters that I transacted with him I had to cart back and forth great quantities of papers to submit to him. His usual formula was, "Well, let us see the papers", and I have no doubt and I believe the fact to be, that he did have all these papers before him. [996]

Q. Did he give you any reason, or have you any reason now to know why Judge Cornish did not reply to the letter of September 3, 1904?

A. Anybody that knew Judge Cornish would be able to answer that question.

Q. Unfortunately I didn't have the pleasure of knowing Judge Cornish.

A. No. Well, I believe I have testified to it before. Judge Cornish is dead, and what I say is not to be taken as any reflection upon him. I want that understood.

Q. Yes.

A. He was a peculiar man, and notwithstanding the fact that I was his confidential man, and was for years—I think the only one he had—still he never put himself on record. My belief is that he always wished to leave himself in the position where he could take matters up as though he had had no previous information. It was a peculiarity of mind, it was a

peculiarity of habit, but it was a fact, nevertheless. And not only in this case, but I think in about every case, things became acute in many ways, and it was not an unusual thing for him to wire me to come on to New York without telling me what he wanted, leaving me entirely to divine what he might want. Whether he sent for me in this case I don't know. But I did go, and I did take this matter up with him, and I would not have thought of proceeding without his concurrence and his direction. I would have had no right to do so under my particular instructions and my appointment, which you must remember did not come from the board of directors but came from New York. And it must be remembered, too, that my appearance in San Francisco, my continuance here, and the main reason of my being here, was to make a reorganization. This business was thrust upon me, this particular business of being a land agent, and the temporary [997] nature of my employment here is fully shown in the title "Acting land agent". It was not my intention to be loaded with that. I would not be anybody's land agent for any length of time if I could help myself.

Q. Well, what was the reason, do you understand, Mr. Eberlein, that he didn't reply to your letter of September 3, 1904?

A. I think it would take a clairvoyant to find that out. I don't know, excepting just what I have said. I don't know how to explain it otherwise. He did not reply.

Q. Do you know whether he wired you to come to New York?

A. I don't remember that.

Q. When you went to New York you discussed the matter referred to in the letter?

A. Oh, yes, it was fully discussed.

Q. Now, there are some matters in that letter referring to pipeage charges and reduction in the gross amount of royalty, and several collateral matters in addition to the statement regarding the establishment of the mineral character of these lands by the execution of that lease.

A. Well.

Q. Was Mr. Cornish in any wise interested in any of those other matters?

A. Let me see if I understand what you mean. You mean as to these matters—

Q. Did he take up the details of pipeage, and pipeage charges, and royalty? Was he interested in that sort of thing?

A. I don't think he was interested in those, except as to one thing as to which I am clear, and that was as to the passage by me of bills for pipeage.

Q. Because they would serve as a recognition of the lease, do you mean? [998]

A. He informed me as a lawyer that that might be considered as a recognition and ratification by me whether I signed the lease or not. I never had any advice from anyone else regarding it but from Judge Cornish.

Q. Now, is it not a fact that the paramount mat-

ter discussed by you at that meeting with Mr. Cornish, and the only thing which was regarded as of any importance whatever by either one of you, was the actual danger threatened of establishing the mineral status of the lands involved in this suit by the execution of that lease to the Kern Trading and Oil Company?

Mr. Lewers—To which we object, on the ground it is leading and suggestive. I suggest also that it is calling for the conclusion of the witness. The best evidence is what was actually said and done and not the conclusion of the witness at this time. It is the counsel's language and is not based on anything in the record.

A. As near as I can remember, after this lapse of time, that matter was discussed, and pretty fully discussed, as to the relation that the execution of that lease might put me in in regard to the list that was already in and approved.

Q. Was not that the principal subject under discussion between you and Mr. Cornish?

A. It may have been, because it was a very important matter.

Q. Was Mr. Cornish in any wise, to your recollection, interested in any of these collateral matters, which were matters of detail, referred to in the letter, such, for instance, as the reduction of the gross amount of royalty, and so on?

A. Oh, I don't suppose he was interested in that, because I imagine he would think that was within the province of the gentlemen here. Whether he considered those as entirely irrelevant and immaterial I

can't tell you, because he might [999] have had his own ideas about that which he didn't convey to me.

Q. By "the gentlemen here", whom do you mean?

A. I mean the manager of the Southern Pacific and his assistants and co-ordinate officers.

Q. During that discussion in respect to this selection list, did you have in mind at that time the effect of the execution of this lease upon the good faith of your non-mineral affidavit and the question that might be raised by the government?

A. I think we both recognized the possibility of the thing being called into question some time—somebody's good faith.

Q. Now, on that proposed lease, Mr. Eberlein, of August 2, 1904, which has been introduced in evidence here, there appears an endorsement, "Approved as to form, W. F. Herrin. Approved as to description, E. T. Dumble". You knew at that time who Mr. Dumble was, did you not?

A. Yes sir; I think so.

Q. That he was the consulting geologist of the Southern Pacific Company?

A. I think I knew what his title was; not much more.

Q. Now, you had seen Mr. Markham sign the lease, as I understand it, and you left for Denver? Is that right?

A. That evening; yes.

Q. And during your absence the lease was sent to your office? Is that correct?

A. Yes sir; that is correct.

Q. And subsequently Mr. Stone notified you by wire at Denver that the lease had been received?

A. Yes.

Q. And you replied to that?

A. I did.

Q. Now, during that month, do you recollect whether you took any time to go thoroughly over the lease before you wrote [1000] the letter of September 3, 1904?

A. I don't remember, but I hardly think so.

Q. You were busily engaged in other matters, I think?

A. I can't place my movements further than I went to Denver and I went to Omaha—I remember who I went with from Denver to Omaha—and I had matters on the Union Pacific which I was loaded with, as well as matters out her, which called for attention, and I don't remember whether I went on to New York or not, but I was gone for a considerable time; and I returned here, and the only thing I have to fix anything of that month in mind by is the date of that rearranged list, which had escaped my mind completely until brought into evidence in Los Angeles. That was signed, as it appears, on the 3rd day of August. Now, the latter part of the month in the land department was a very busy time, cleaning up the flotsam and jetsam of routine—payrolls, and everything, and signing of all kinds of routine matters—so that my belief is that I didn't give that any attention, or very little attention, during that month or

until the first of the following month. That would be the reasonable thing to suppose from the ordinary process of business and work in the department.

Q. Now, referring to your letter of September 3, 1904, to Mr. Cornish, in which you specifically call attention to certain objections you had to the lease, do you now recollect whether you had given any time to digest that lease before you wrote that letter?

A. Oh, yes; I think I had taken time to sit down and read it carefully and make some analysis of it. I could not have written a letter, otherwise, with reference to it.

Q. Did you at the time you wrote that letter have any reason to believe, or any suspicion, that these men who attempted to have you execute that lease had a greater amount of knowledge [1001] upon the subject matter of these lands than yourself?

A. As to "these men", I can only testify as to one. The appearance of Mr. Herrin's name on that is not significant at all. It is simply to approve the document as to its form. Mr. Dumble's name on there, and that certificate, is a different thing. That brought to my attention, as I believe, from what I can recall, the circumstances as they existed at that time. That was a surprise to me, and I objected to the preparation of such a document, which called, and must call, for the records of my office, without any reference to the office, as that was. I don't know, I don't think I knew or had any notice at all, that Mr. Dumble had any connection, or knew anything about the Southern Pacific

Railroad lands. He was an officer, consulting geologist, at least, of the Southern Pacific Company, and he had no connection with me that I knew of; and, as the examination of the list by the people in my office showed that there were mistakes, I called Mr. Markham's attention to it, and the language of that reference in the letter shows something of my condition of mind at that time in reference to that particular matter. It was a rather mild form of protest, but it was a protest.

Q. Didn't you have reason to suspect at that time, Mr. Eberlein, that Mr. Dumble at least had knowledge of the mineral character of these lands, or, at least, knowledge of the character of the land, which he had withheld from you?

Mr. Lewers—Objected to as calling for a conclusion and not calling for a statement of any facts at all. Whether he had reason to suspect, one counsel may think there was reason to suspect and other counsel may not think so.

Q. By Mr. Mills—(Continuing). I speak now of September 3rd, when you wrote that letter.

A. Well, now, it is impossible for a man—That is a [1002] psychological problem which it is pretty hard to solve at this distance of time. As to just what my state of mind was at that time it is very hard for me to say or to fix. The fact as I now remember it, and as seems to be fixed by my letter to Mr. Conlin, was that here was a man certifying as to the correctness of a list of land, the only list of which was kept in my office, and as to his connection with that I didn't know

that he had any or had asked for any information. If he had it had slipped me—if I had known anything about it, and I didn't believe I did. It may have raised in my mind some uncertainty as to what Mr. Dumble knew; but as to whether it was as to mineral character I can't tell you. However, taken in connection with protests I made thereafter, I may have had a feeling that Mr. Dumble had knowledge of lands which I did not have. You remember the last letter introduced in evidence is a protest of mine against Mr. Dumble's examining unpatented lands without any knowledge of or reference to or co-operation with the land department. I think it is a very reasonable thing for any man charged with the duties that I was charged with—the duty of making a non-mineral affidavit on the very best information he could obtain. as I did—to have the feeling that some man examined those lands and charged the company with notice but without charging me with notice. Now, that is as far, I think, as I can go in this matter.

Q. By Mr. Lewers—By that letter to Mr. Conlin, you refer to the letter of February 22, 1908, do you not?

A. Yes sir.

Q. By Mr. Mills—But that was a continuation of your protest which you had made repeatedly, was it not, against Mr. Dumble examining lands not yet patented?

A. About examining any lands. How would they know whether they were patented or not? The ex-

amination of Southern Pacific [1003] lands without any knowledge, consent, approval, or any co-operation with the responsible land officer—he was in danger of being placed in an anomalous position, at least, all the time.

By Mr. McCormick:

Q. Have you the volume with page 1933 in it?

A. Yes sir.

Q. At that time I believe Mr. Lewers was questioning you with reference to this conversation which you had with Judge Cornish in New York, and the question at the top of page 1933, relating to that conversation, is as follows: “Q—And you went quite fully into that matter with him, did you? A—Oh, yes; we went into it very fully, because I had no desire to block anything out here.” What did you have reference to when you made that statement?

A. Undoubtedly to the action that these gentlemen were attempting to take out here. If the gentlemen wanted to make a lease, a proper lease, of lands for any purpose, I didn’t see that it was any of my business to get in their way. In this particular instance I thought the lease was improper to be made in the form that it was.

Q. You stated after that, “I simply wanted to be relieved of the responsibility, and he, of course, didn’t want to be placed in the position of standing in the way of any action out here.” Does your explanation with reference to what you meant yourself apply also to the way he treated it?

A. Certainly I so understood it at the time. But I further say here that "He knew nothing about it".

Q. Now, in the letter found at page 1755, letter from Mr. Markham to Eberlein, dated September 21, 1904, the last clause of the letter suggests that Mr. Eberlein consult Mr. Dumble and the law department in order that the lease may be properly drawn. [1004] What law department did you understand was referred to there?

A. The only law department there was—the one presided over by Mr. William F. Herrin as chief counsel of the Southern Pacific Company.

Q. That was the law department of the Southern Pacific Railroad Company as well?

A. I understand it to be so, and of every other branch of the railroad company.

Q. Now, as I understand your testimony, when you were directed to come out here by Mr. Cornish, at that time no instructions whatever were given to you, nor did you know, that you would be called upon to attend to the duties of land agent of the Southern Pacific Railroad Company at all?

A. No; it was absolutely not thought of at all.

Q. And the first time that it was suggested to you or you were told that you would be expected to attend to those duties was when Mr. Kruttschnitt broached it to you?

A. Yes sir.

Q. And thereafter the resolution a copy of which has been introduced in evidence here was passed?

A. Yes sir.

Q. Giving you the authority to act as such land agent?

A. Yes sir.

Mr. Mills—That is all. I will reserve the right to recall the witness if anything further comes up on which I think I need his testimony.

Mr. Lewers—We will reserve the right also to recall him for further cross-examination, on sufficient notice.

The Witness—There are about four days testimony here that I have not had a chance to read over. Will I have the right to look that over and offer any suggestions about it?

Mr. Mills—Undoubtedly. I will furnish you a copy, and [1005] if you find that any errors have crept into it you may come back here and correct it.

RECROSS EXAMINATION
OF
CHARLES W. EBERLEIN

By Mr. Lewers:

Q. At the time when Mr. Kruttschnitt requested you or arranged for you to become acting land agent of the Southern Pacific Railroad Company, Mr. Kruttschnitt was the general manager here on the coast, was he not?

A. Yes sir.

Q. And occupied the same position that Mr. Markham did afterwards?

A. Yes sir.

Q. And Mr. Kruttschnitt had been in control, had he not, of Mr. Jerome Madden as land agent of the Southern Pacific Railroad Company?

A. I presume he had. I don't remember. I suppose he had, because that was prior to the time of the purchase of the Huntington interests by the Harriman system and the whole control of land matters was here and must have been under the general manager.

Q. Now, when you first came to the coast and were engaged in your work of reorganization, you became familiar, did you not, to some extent, with the situation concerning indemnity lands?

A. I don't remember of any particular information I had. If so, it was exceedingly general, because, in the time I was here, as I have already testified to, we were very busy organizing that land accounts bureau, getting that started. [1006] Mr. Erastus Young was here during that six weeks that intervened between the time I came and the time I took that appointment.

Q. Who was Erastus Young?

A. He was general auditor, at that time, for the Harriman lines, and he came here to co-operate with me in regard to that particular matter. Now, the particular matter as to which I was informed at that time in regard to the Southern Pacific land department was the condition of its contract assets. There were questions arising there, simply questions of the accounting and how we should handle certain things.

Q. But what I want to get at is whether, at the time when you took charge as acting land agent, you didn't have in mind the desirability of not losing any further indemnity lands, if possible?

A. I think I was alive to that. The matter of surveys is probably one of the first things I would look into.

Q. Now, did you not learn, immediately after you took charge of the office, that the survey of Township 30-23 had been filed in the Visalia Land Office?

Mr. Mills—Objected to as leading and suggestive.

A. Now, as to whether I knew that that particular township had been filed I don't know. I think that I did find out that certain surveys—where they were now I don't know—had been made some months prior, and my recollection is that I thought the proper thing was to get all the land that we were entitled to, because we had a large amount of base.

Q. By Mr. Lewers—Well, did you give orders accordingly?

A. I gave orders to Mr. Stone to make a list, to select as much indemnity land as he could. We had a large amount of base, as I remember—50,000 acres, about—and nothing like that amount of indemnity.

Q. Well, did Mr. Stone in any way start you in this movement [1007] to select this list?

A. I don't believe he did.

Q. Did you start him?

A. I suppose I did.

Q. Well, what is your recollection upon that?

A. My recollection is just as I testified here, that I presume I asked for information as to surveys.

Mr. Mills—I move that that be stricken, as not responsive, and, moreover, as extremely vague, and based entirely upon a presumption.

Q. By Mr. Lewers—Proceed.

A. These things have to be based on presumptions, because they are exceedingly far away at this time; made no particular impression at the time, and therefore I can't testify definitely. But the natural course of proceeding would be that I looked into that condition of affairs, and told Mr. Stone, who was familiar with all the bases and all the lands, and the books—and he was the only man, by the way, in there, at that time, that was, because there were a number of men there discharged. So that it threw that work entirely on Mr. Stone, as being the only man left in the department who had sufficient knowledge by which he could make up that list. I could not have made the list up. I never did make a list up in my life. I don't know anything about it, much. But as to how that list came to be made, that is my general recollection; and I am sorry I can't make it any more particular.

Q. Well, did anyone suggest to you the making of that list?

A. No sir; not that I know of.

Q. Would it not have impressed itself upon your mind at that time if somebody had come from some other department and suggested to you that you had better make a list of the lands?

Mr. Mills—I object to that as extremely leading, and [1008] testifying into the record yourself. The witness has stated he does not recall very much about this.

A. I would have remembered that, I am very sure. But I don't think any such thing ever occurred at any time that I ever remember.

Q. By Mr. Lewers—Now, in your letter of February 22, 1908, to Mr. Conlin, which has been introduced in evidence here, you refer to protests against Mr. Dumble's activities. Now, had you made any such protests at any time prior to September 1, 1904? Did you ever have any occasion to, to your knowledge?

A. No sir; I don't think I had occasion to do so.

Q. Well, did you at any time in 1904, that you can recollect, make any protest against Mr. Dumble's activity in examining lands?

A. I can't put my finger on any specific time or any specific circumstance. I think I did at different times in conversation with Judge Cornish, possibly with Mr. Markham.

Q. Well, was that in 1904, or afterwards?

A. Well, there is another time when I can't fix dates, but coming on the heels of this matter that we have under discussion I think I had in mind the danger of anybody taking upon themselves to examine the lands not of the land department.

Q. That is, you had in mind, did you not, that the land department might in good faith go ahead without knowledge that somebody else was competent?

A. Yes sir.

Q. That is what you meant by that letter, is it not?

A. By this letter?

Q. Of February 22, 1908?

A. Oh, yes; it is evident from the letter that that is just what I meant—that I, for instance, might make a selection of lands depending on my examination, and a trained geologist might have been over that same ground without my [1009] knowledge and whether I was right or wrong I felt that inasmuch as he was connected with the Southern Pacific there might be a chance of a claim that I was charged with notice in some way. I could not be, but still the claim might be made. It must be remembered that all the time, at least, that I was in the service, it was the ruling of the department, as I understood it, that surface indications was all that governed in the matter of the selection of lands.

Q. Now, did you tell Judge Cornish, in any of your conversations, that Mr. Markham, or anybody else here, was insisting on the execution of this lease or the carrying out of it?

A. Yes. That matter was under discussion by us several times. That appeared from the letters that came up; and the Judge brought the matter up to me several times and asked me what the condition of things was in regard to that.

Q. Do you know whether Judge Cornish ever actually read the proposed lease of August 2, 1904?

A. No; I can't swear to the fact that he did. He was a fellow that never took any more trouble than he had to, and he depended upon somebody else to read it, as a usual thing, in a matter of that kind. He may have skimmed it through. I can't say.

Q. Do you remember ever seeing him examine it in your presence?

A. We had it there. I remember of our having that lease and looking at it more than once a considerable length of time; but I think likely he depended upon me to analyze it. With reference to the question asked me yesterday by Mr. Lewers with regard to the individual leases, I desire to say that I assumed that inasmuch as the lease itself carried with it the lands, the royalty provided in the general lease would control; that [1010] is, they were getting possession of those leases and they would be entitled to collect the royalty on the original lease and were bound by the terms of the general lease to pay only one-tenth of the royalty.

Q. That is, your understanding at that time, when you wrote these letters, was that the royalty to be received by the Southern Pacific Railroad Company would be reduced in all cases to one-tenth?

A. Yes sir.

Q. But you don't know what the actual practice under that lease was?

A. No; I can't tell you. I don't remember.

Mr. Lewers—That is all.

REDIRECT EXAMINATION
OF
CHARLES W. EBERLEIN

By Mr. Mills:

Q. I call your attention to page 1805 of the reporter's transcript, which is a portion of the description of the lands in the lease to the Kern Trading and Oil Company, and ask you if there is any reference made there to the individual leases?

A. In the descriptions of land in the Coalinga district there appears the following: "Including leases on Section 31", that is, of Town. 19 South, Range 15 East." Then, immediately under that, "Including leases on each," which has reference to Sections 1, 13, 23 and 25, Town. 20 South, Range 14 East. And following that is this language: "Including leases on Section 7", which refers to Township 20 South, Range 15 East. [1011]

(Endorsed) Equity No. In the United States
Circuit Court of Appeals for the Ninth Circuit. The
Southern Pacific Company, a corporation, et al., Ap-
pellants, -vs- The United States of America, Appel-
lee, Exhibit A. To be printed. Volume II. Filed
Jan. 27, 1917, Wm. M. Van Dyke, Clerk, By Chas. N.
Williams, Deputy Clerk. [1011½]
Equity No. 221

*IN THE DISTRICT COURT OF THE UNITED
STATES FOR THE NINTH CIRCUIT
SOUTHERN DISTRICT OF CALIFORNIA
NORTHERN DIVISION*

THE UNITED STATES

OF AMERICA,

Plaintiff,

-vs-

THE SOUTHERN PA-

CIFIC COMPANY,

a corporation, et al,

Defendants.

EXHIBIT A.

Condensed Statement of
Evidence in Transcript
on Appeal as Approved
by the Court and to be
Printed.

VOLUME II. [1011 $\frac{3}{4}$]

CHARLOTTE DOROTHY CUNNINGHAM, a
witness called and sworn on behalf of the plaintiff,
testified as follows:

DIRECT EXAMINATION

I am a married woman and my maiden name was Abraham. My Christian name is Charlotte Dorothy and I am known by the name of Lottie. I reside in Kentfield, Marin County. During the month of September, 1905, I was employed in the Land Office of the Southern Pacific Railroad. At that time I was seventeen years of age. I was employed by Mr. George A. Stone, and our offices were in the building of the Merchants Trust Company, No. 1035 California St., San Francisco. I was stenographer for two years and then was made file clerk and continued in that capacity until September, 1906. Mr. Stone was

employed in that office at the time I left. He superintended all of the work of the office. I knew Mr. Eberlein. Anyone that came to that office to see Mr. Eberlein would have to see Mr. Stone first.

On plaintiff's exhibit KK, purporting to be a copy of a letter dated September 10th, 1904, directed to C. H. Markham, General Manager, Southern Pacific, and signed Charles W. Eberlein, Land Agent, and consisting of three pages, the letters "L" and "A" is my handwriting, and the initials on that letter "H. K." are those of Herman Koch, an employe in the Land Office the same as I was. The initials "L. A." on plaintiff's exhibit JJ are my initials and the initials "H. K." on the same exhibit are those of Mr. Herman Koch. My initials were placed there by me and Mr. Koch's by him. On plaintiff's Exhibit II and plaintiff's exhibit HH and plaintiff's exhibit GG and plaintiff's exhibit FF and plaintiff's exhibit EE and plaintiff's exhibit OO and plaintiff's exhibit LL and plaintiff's exhibit MM and plaintiff's exhibit NN and plaintiff's exhibit PP and plaintiff's exhibit QQ and plaintiff's exhibit RR and plaintiff's exhibit SS the initials "L. A." are my initials [1012] placed there by me and the initials "H. K." are Herman Koch's initials placed there by him. I did the type-writing that appears on these various documents that I have identified and which bear my initials. At the time I typed these documents I was in Oakland in the employ of the Southern Pacific Railroad Company. It was two weeks after the San Francisco fire of April 18th, 1906. I copied these various exhibits

which bear my initials from the burned originals of these letters which were handed me by Mr. Stone, who told me to copy them as they were and then compare them and hand them back to him and I let him know when I had finished them and was then told to compare them with Mr. Koch. As near as I can remember, when Mr. Stone handed me these letters he said for me to copy these papers and not to allow them to go out of my hands to anyone else in the office, none of the stenographers, but was to keep them myself, and return them to him personally. I remember this particular file of documents. They were not all handed to me at once, but several of them together. The originals were very badly burned and they had to be handled very carefully. I think I had them all together when I handed them back to Mr. Stone. I think I copied them all in one day. These documents are correct copies of the burned papers of which they purport to be copies. I know that because I would not have signed my initials to them if they had not been, and it was at Mr. Stone's instructions that I compared them with Mr. Koch. Mr. Stone told me to see that they were correct and to compare them with Mr. Koch. He told me to go over and sit on one side of the room near a little bay window of the office and compare them in an undertone, which we did. The papers from which these copies were made were very much charred and they were in no condition to be saved or kept in the files after we got through with them so they were destroyed. [1013]

CROSS EXAMINATION
OF

CHARLOTTE DOROTHY CUNNINGHAM.

I copied other papers about the same time. There were a great many files that were charred that had been saved from the fire and I had a great deal of copying and comparing to do. I worked under the instructions and direction of Mr. Stone. I followed about the same method in copying others as I did in copying these exhibits. I compared others in an undertone in the same place that I did these, but not with the same secrecy as I did these. Mr. Stone didn't tell me to keep these secret but there was an air of secrecy about the handling of these papers. He told me not to give them into the hands of any other clerk in the office. He didn't tell me why and I didn't know why, but Mr. Koch and I compared them in an undertone. I had never seen this file before the fire and knew nothing about it. I have never seen a duplicate of it. If there was a duplicate of this file in the office before the fire I didn't see it, it was not kept in the general files. This copying was done in Oakland and we only had one room in which to do our work and there was about a dozen clerks there. When Mr. Stone brought these papers to me he told me to make exact copies of them and he said "I want you to keep these papers and you return them to me after you have finished with them". I had received similar instructions from him with respect to other papers, but with reference to these it was unusual in the way he said it; it was the quietness with which

he said it. I was impressed at the time that these papers were practically private and he said little things to give me that impression. He told me I was to copy them and to hand them right back to him and not to allow them to get in the hands of any of the other clerks or anybody else in the office. When he came around he would speak in a very low undertone in his [1014] little nervous way. Mr. Stone was nervous when there was any great excitement or anything to be nervous about, that was not his general manner. He didn't always speak in such a low tone and with an air that he didn't want anyone around to hear him. From the fact that he told me to keep those and return them to him without letting the other clerks in the office have them, and that he spoke in a low tone and appeared nervous, I concluded there was something very secret and vital about those papers. I think I was too young to understand the meaning of them. While I was comparing those papers with Mr. Koch, Mr. Stone hovered around a great deal. He was rather close. He seemed to watch those papers a great deal. I think Mr. Eberlein was in the office, I don't remember exactly. I didn't hear Mr. Eberlein give any orders in connection with these papers. We received very few orders from Mr. Eberlein himself. It was after I compared the papers that Mr. Stone told me and Mr. Koch to compare them in an undertone. I think that was stated in the presence of Mr. Koch. Mr. Stone said something about "sitting over here and comparing these so that the rest won't hear," and that is all I recollect. I remem-

ber his telling us not to read so loud. There were a great many clerks gathered in that small room and there were others engaged in similar copying work and I suppose the noise from one desk would disturb the others. There might have been others copying while Mr. Koch and I were comparing these papers. Mr. Stone did not hover around any of the others. He did not remain close to me all the time, but quite a bit. Mr. Stone searched out most of the burned papers and he would go back to the table with the burned papers on it and look them over and then come back and see how we were getting along. Neither Mr. Eberlein nor Mr. Stone had a private desk in that office, nor had they private offices, it was just one pretty good sized room and they both worked at a large table running down the [1015] middle of the room made up of boards on saw-horses. Everything was out in the open and everybody was working together and everything was in considerable confusion after the fire.

REDIRECT EXAMINATION OF

CHARLOTTE DOROTHY CUNNINGHAM.

I don't think this particular file of papers was in this endless confusion because it seemed to stand out separately.

THOMAS J. GRIFFIN, a witness called and sworn on behalf of the plaintiff, testified as follows:

DIRECT EXAMINATION

I will be fifty years old my next birthday and I re-

side in Los Angeles. From 1874 to 1904 I lived in Texas and became acquainted there with one J. B. Treadwell. His business there was oil operator. I knew E. T. Dumble, who was spoken of here as the consulting geologist of the Southern Pacific Company, at Beaumont, in Texas, and I understood that when he was there he was head geologist for the Southern Pacific Company. I first became acquainted with Mr. Treadwell in 1901. He is now located in Los Angeles and I see him nearly every day. I was pretty well acquainted with him in Texas. During the period of my acquaintanceship with Mr. Treadwell and Mr. Dumble, I was an oil operator, drilling and contracting. I was connected with the Southern Pacific Company during the year 1902 or 1903. In 1903 and 1904 I was in the employ of the Rio Bravo Oil Company, whose headquarters were at Houston, Texas. My employment was that of mechanical engineer of the fuel department. I had official connection with Mr. E. T. Dumble, but not with Mr. Treadwell, as he was not connected with the Rio Bravo Oil Company. I always considered the Rio Bravo Oil Company as a subsidiary corporation of the Southern Pacific Company. Mr. Treadwell's business down there [1016] in connection with the Southern Pacific Company was drilling and contracting, drilling wells and building oil tanks, storage, also buying oil for the use of the Southern Pacific Railroad. When Mr. Treadwell first came to Beaumont, I and everyone else that I knew of, considered that Mr. Treadwell was operating indepen-

dently though he was doing business for the Southern Pacific. He was buying lands, drilling wells and contracting for oil wells and buying oil. In 1903 I was at Spindletop Oil Field in Texas. That's about four and a half miles from Beaumont, near a station called Gladys on the Southern Pacific road, between Beaumont and the Gulf. I was one of the organizers of the Spindletop Power Company. I was Vice-President and General Manager. We were engaged in the business of pumping, drilling for and selling oil. We furnished power for the use of Mr. Treadwell in connection with his wells that were known as the Treadwell wells. I first learned that Mr. Treadwell was not operating for himself, but really for the Southern Pacific, in 1902. In that year Mr. Treadwell told me: "Mr. Harriman and his party from New York, on a tour of inspection, will arrive in Beaumont today and is coming out to Gladys and wants to see the Southern Pacific well flow." I says: "What wells do you have reference to, Mr. Treadwell?" "Oh," he says, "these over here in the Hogswain Tract or Southern Pacific Wells. They belong to the company. I am only here operating and paying the bills, as there is a law prohibiting the Southern Pacific Railroad Company from doing this kind of business in the state of Texas." On that occasion I met Mr. Harriman, being introduced to him by Mr. Treadwell. I talked with Mr. Harriman and Mr. Dumble in 1902 and 1903 respecting the California Oil fields and I had several conversations with Mr. Treadwell about the Elk Hills. The first conversa-

tion I ever had with Treadwell regarding the California oil fields was at his office in Gladys. He told me he had just returned from the Kern River Fields and [1017] that he had been up on the west side looking over lands and had been out with a party of geologists and had made a careful examination and that he found oil sands and indications of oil from Sunset Field to Coalinga, including the flats and the Elk Hills, or what was known at that time as the Buena Vista Hills. At that conversation with Mr. Treadwell, he asked me if I wouldn't like to ship a rig, as I had several, out to California and to put in test wells and do the necessary assessment work on some of the west side vacant lands. There was talk between Mr. Treadwell and myself at that time respecting the going into an investment with him in the acquisition of even numbered sections of land in the West Side Field of California. In that first conversation we were sitting on the outside of Mr. Treadwell's office at Gladys. He said: "Mr. Griffin, the California Oil fields have not started yet. Our geologists have gone over it carefully. The proper thing for you to do is to get a rig, ship it out there at once, and I will go in with you and will put in the same amount of money that you and your partner, M. B. Bass does; I will invest as much money as you two; you go out there and take up even sections of lands. I will attend to the legal part of it and you people do the work, and we will divide up equally." He had a large map, two feet by three feet, showing the lands. The map started about one township below old Sunset and went up as far as the Town of Coalinga, run-

ning northwest and southeast. It included the Buena Vista Hills, Lake Tulare, and the Buena Vista Lake. By the Buena Vista Hills I mean the two groups of hills including what are now known as the Elk Hills. The lower are the Buena Vista Hills next to Buena Vista Lake and the upper are the Elk Hills, near McKittrick. The map showed unsurveyed lands located in the Elk Hills covering probably two or three townships. Mr. Treadwell told me that the unsurveyed lands in the Elk Hills were lands he and the geologists of the Southern [1018] Pacific Railroad had gone over, and that that was where he wanted me to go; that the lands would be surveyed very soon and as soon as they were surveyed, the Southern Pacific Railroad would make application for patent for the odd sections and he wanted me to take up the even sections. I am now familiar with the Elk Hills. If my memory serves me right, the unsurveyed land that he showed me on the map that he wanted me to take up was in Township 30 South, Range 23 East, and included the lands involved in this suit. I became very much interested in the subject of coming out here to make that investment and I studied the map very carefully and asked Mr. Treadwell to let me have it. He said: "I can't; it is the Railroad Company's property and I can't let it out." The map showed the country by sub-divisions such as townships and sections. There was a legend on the map showing the character of the lands and there was a great deal of writing on the map. I don't know who prepared the map, but there was a geologist's name

on it, but I don't remember who it was. I interested my partner in the matter. I had five or six conversations with Mr. Treadwell with reference to coming out, besides some letters from him. We were to come out here with one or two rigs and to develop the land as soon as Mr. Treadwell reported that it had been surveyed by the Government. About ten days after Mr. Treadwell showed me this original map, he gave me a copy that he had made. I have lost that copy. I first knew that this copy was lost on April 30, 1912. When I left Texas I left a lot of papers with a storage company in Beaumont and in April of this year I went to Beaumont with Mr. Ira M. Flocker, a special Agent of the U. S. General Land Office, to look for this map and the letters I have referred to. When I got there I asked the man in charge of the storage company about my boxes and he told me that most of the things had been sold for storage and that he had shipped some of the boxes that contained papers up to a ranch near a little place [1019] called Haywood, about sixty miles from Beaumont. Mr. Flocker and I went up there and looked for this map and letters, but were informed by the party on the ranch there that nearly everything we had come to look for was gone—had been destroyed. I found one of the boxes out in the yard with my name on it. It was being used for a chicken coop. The party in charge there told me that the box had a lot of old papers in it and he moved it out in the yard and he dumped the papers out and tried to burn them. Some of them burned and some of them were scattered around by

the wind. We got a rake and raked under the house and found one paper there that belonged to me. It was a bill from the Letitia Rosenberg Old Women's Home of Galveston, Texas. We did not find the map or the letters from Mr. Treadwell. I am positive that this map and these letters were in the boxes that I put in storage. This map that Mr. Treadwell gave me was about two-thirds the size of the original and it was carefully laid off with sections, townships and ranges marked, showing the Buena Vista Lake, Lake Tulare; also the Buena Vista Hills. It also showed anticlines. The original map which had the name of the geologist on it contained some geological information. It was with reference to the anticlines and the probable depths at different places, in figures, showing where oil would be struck; showing also in red ink the croppings of sand at different places. It was a very carefully made map. In the spring of 1904 I had a talk with Mr. Dumble respecting particular lands near McKittrick. I had this conversation with him while I was in the employ of the Rio Bravo Company in Texas. There was no one present except Mr. Dumble and myself. Mr. Dumble was an officer of the Rio Bravo Company. The conversation came over Rio Bravo Well No. 107. We were at the well at the time and discussing the depth that the first strata of oil had been struck, where she was a gusher, and the probability of striking a lower strata and the gravity of [1020] that oil that we would find in the lower strata. He began to tell me about the low gravity oil of Kern County in the Kern Field

and Sunset and McKittrick. He said he would like to find an oil of that lower gravity, as it would be much better for fuel and not so dangerous from fire, and suggested that if Well No. 107 quit flowing or quit producing that he was going to take it up with New York and get an appropriation from New York to deepen the well and go down and make a test of it. He further said: "Mr. Griffin, the coming field is California and that is where you ought to go and get in. The territory is so large. I know every foot of it. I have been over it in person and it is so large that you can hardly put down a hole without getting oil. We own a great deal of that land. A great deal of it we haven't yet taken patents on, but we expect to." Subsequent to that I had another conversation with him in the spring of 1904 while I was in the employ of the Rio Bravo Company. We were riding together on the train and were just north of Bakersfield, going towards San Francisco, west of the Kern River Field. Mr. Dumble was sitting next to the window in the Pullman and he pointed over with his left hand and says: "Griffin, right over yonder about thirty miles is the biggest oil field in the world. I know it: so does all the rest of us know it. We have large holdings over there. I think I told you about this some time ago and you should have gone over there, or you should yet. We have large holdings and expect to have more." At that time I was riding on passes of the Southern Pacific Company. I was furnished these passes by the Southern Pacific Company for the Sunset Route, the Texas and New Orleans,

the Galveston, Houston and San Antonio, and all their other lines. I quit the employ of the Southern Pacific Company September 1, 1904, and this conversation with Mr. Dumble was prior to the time I quit the employment. I had other passes other than these which are here marked plaintiff's exhibits "EEE" [1021] and "FFF". I came to California on a pass and returned at the time I was riding with Dumble. Mr. Dumble was riding on a passbook at that time. At the time I was employed by the Rio Bravo Oil Company I kept the payroll, paid my men off by check. My check from the Rio Bravo Oil Company was sent me for my different men and upon the receipt of these checks and the payroll I would take the men to the agent of whatever railroad line I happened to be on or whatever station I was at and the agent would cash those checks, the railroad company's agents. The lines I referred to were the Texas and New Orleans, or the Louisiana and Western, or the G., H. and S. C., and what subsidiary lines I might be on. I knew C. B. Segar. In 1904 he was Secretary of the Rio Bravo Oil Company. At that time I think he was an officer of the Southern Pacific Railroad Company or the Southern Pacific Company. I know C. H. Markham. He was the President of the Rio Bravo Oil Company in 1903 and 1904, or part of 1904. Plaintiff's exhibit "GGG" is a notice from Mr. Segar, Secretary of the Rio Bravo Oil Company, notifying me of sending me my check roll No. 62 for men. I got that in the course of my business and official connection with that Company. The exhibit

reads as follows: "Rio Bravo Oil Company, General Office, Houston, Texas. Greenwell Fay, President, E. T. Dumble, Vice President, C. B. Segar, Secretary, B. C. Cushman, Treasurer, Houston, Texas, July 14, 1904. Mr. T. J. Griffin, Welsh, Louisiana. Dear Sir: I beg to hand you herewith pay-check roll No. 62 covering time certificates issued in favor your men for work done in July, which go to agent at Welsh by express this day. The certificates will be cashed when the men are identified by you. Yours truly, C. B. Segar, Secretary. J. W. W. C." I received orders from Mr. Dumble all the time. He it was that I took orders from. He or Mr. Markham. I received this letter marked plaintiff's exhibit "HHH" from Dumble. It reads as follows: "Houston, Texas, June 28, 1904. Erection of 10,000 bbl [1022] tank—Sour Lake: Mr. T. J. Griffin, Sour Lake, Texas. Dear Sir: Please hurry the erection of the 10,000 barrel tank at Sour Lake as much as possible. We may have to put it into use on very short notice and I would like to have it ready. Keep me advised promptly progress of work. Yours very truly, E. T. Dumble C CC to TJG Beaumont."

CROSS EXAMINATION
OF
THOMAS J. GRIFFIN.

I came to San Francisco last Saturday morning a week ago and have been here continuously since that time, and have been staying at the Goodfriend Hotel. I don't think there is a night since I have been

here that I have not been there. At five or half past five last night I was in my room at the Goodfriend Hotel. I did not call Mr. Lewers up at that time over the telephone and give my name as Franklin, and I did not tell Mr. Lewers that a lady by the name of Mrs. Brown would call upon him in the morning at half past eight o'clock in regard to this case. I did not this morning send a lady who went by the name of Mrs. Brown to Mr. Lewers' office to make a business proposition with him in connection with my testimony and she did not later report to me that there was nothing doing. I positively did not tell her that I had in my possession the letters and maps and that Mr. Lewers could have them for a consideration. I don't know the name of a woman Mr. Lewers referred to. I never heard of her. I positively did not have a conversation with any woman this morning with reference to this case. I have not been to a cafe this week with any woman nor have I been to any place of entertainment or amusement with a woman this week. There was no woman in my room last evening at five o'clock. There has never been a woman in my room. I was in R. H. Herron's office in the Monadnock Block from 4:30 o'clock until just before half past five, talking to Mr. [1023] Nellis, and I left the Monadnock Block and came up Market Street and met Mr. Mills at Powell Street. I have discussed nothing with any woman this forenoon. No woman asked me any question with reference to this case this forenoon and no woman told me that she was going to Mr. Lewers' office to see him this morn-

ing and no woman told me that she had been to Mr. Lewers' office to see him this morning. The only women that I have talked to this morning are Mrs. Goodfriend and her sister at the hotel. I have not talked with any woman during the last week while I was here in San Francisco about what I was going to testify to in this case and I have not told any woman about my conversation with Prof. Dumble or with J. B. Treadwell that I know of. I should think that I am in a position to remember. I was not under the influence of liquor during any of that time. I never was under the influence of liquor, drunk, in my life. I have been perfectly sober during all of the time I have been in San Francisco. I have told some friends of mine who are living in San Francisco that I am here as a witness for the United States Government in a suit against the Southern Pacific. I don't know whether I mentioned the name of Mr. Dumble. One of the friends I talked to was an oil man. I never spoke to Mrs. Goodfriend or her sister anything about this case. I did not tell any woman in San Francisco or elsewhere this last week that J. B. Treadwell had written me any letters, nor did I tell any woman in San Francisco or elsewhere this last week that J. B. Treadwell had talked with me about the Elk Hills or about Township 30 South, Range 23 East, nor that E. T. Dumble had discussed with me the Elk Hills or any land in that vicinity. I ceased to work for the Southern Pacific Company on September 1, 1904. I was not discharged and have never been bitter against the Company. I did not make any

threats that I would get Mr. E. T. Dumble if I ever got the chance, as he and I are the very best of friends. The first conversation I ever had [1024] with any representatives of the Government in reference to this case was in April of this year at Los Angeles. I did not make any written statement and have never signed an affidavit. I went to McKittrick in 1906 and had never been there before. I cannot say when I first learned that the Elk Hills were once called the Buena Vista Hills. The map that Mr. Treadwell showed me covered from about six miles south of Sunset up to Coalinga. It was quite a large map, probably two and one-half by three feet. I cannot say how many anticlines it showed nor where they were. I did not look at them. The map showed McKittrick, but I don't remember whether it showed any anticlines at Coalinga. I do remember that it showed anticlines somewhere. It showed wells with indications that there were producing wells in the Sunset Field and one or two wells in the McKittrick. This map did not show any wells in Township 30 South, Range 23 East. I can't say whether this map showed any anticlines in Township 30 South, Range 23 East. Mr. Treadwell told me at Gladys in the latter part of 1901 that he had been out with a party of geologists and that he went over the land from south of Sunset to Coalinga. I don't remember the name of the geologists that he was with. I do not know whether he mentioned Josiah Owen or not. I have met Mr. Owen. I don't know whether he said those geologists were working for the Southern Pa-

cific or not, but I inferred it. I had a second conversation with Mr. Treadwell at the same place about ten days after the first conversation. At the second conversation he showed me a map and gave me a copy, stating that this was a copy of the field made on a small scale. He said a great deal besides and wanted me to come to California and drill some on that land, that is, the vacant government land adjacent to the Southern Pacific land; land in McKittrick and near Coalinga. He pointed out Township 30 South, 23 East; I am positive of that. He wanted me to go and drill there as soon as [1025] it would be surveyed and accepted by the Government. I am positive he pointed out Township 30 South, Range 23 East. There were probably fifty townships on that map, but I remember distinctly this particular township. I have no feeling whatever against the Southern Pacific; positively none. I came here completely a disinterested witness. I was brought here. My first conversation with Mr. Mills was in the Post Office Building in Los Angeles, in the corridor near his office. That is the first time any Government man has talked to me about the case. I went there to see how the case was getting along. I heard they were up there taking testimony. I did not go up there and volunteer some information. We were discussing the case and I told him I knew something about it. I think that was the first intimation that he had that I knew anything about it. I met Mr. Mills in the corridor and we had a talk and he invited me to his office and in our general conversation I mentioned

something about the Elk Hills, that I had an automobile and was an oil operator and had been superintendent of a couple of leases up there and that I had been traveling over the oil fields for the last two or three years in a machine. My business in seeing Mr. Mills was that I have in the Lost Hills and in the Devil's Den District placed some locations on Government lands with the intention of going on there and developing it and as the trouble came up over these lands I thought that probably I would get some information as to what the Government probably intended to do, and that is the reason I had the conversation the first time with Mr. Mills. In the conversation with Mr. Treadwell with reference to the California Oil Fields, he also mentioned Township 11-23, which is near Maricopa, and Township 25-20, which is in the Lost Hills. That is where I am located now. He also mentioned Township 30 South, Range 32 East, near the Buena Vista Lake. This is northwest of the Lake. I have never been on that [1026] township. I was in the Elk Hills in 1906 and 1907. I did not make any locations there. I examined the Elk Hills with a view of going there and getting some of the land. I was in Section 28, Township 30 South, Range 23 East, and I was in Section 12, Township 30 South, Range 23 East. I was in there especially as they had been located by other parties who wanted to sell their locations. I did not purchase any locations in there. I made partial arrangements to go in with others, with a man by the name of Blather. Nothing was ever

done with those arrangements and I acquired no interest because I didn't have any money.

REDIRECT EXAMINATION
OF
THOMAS J. GRIFFIN.

Township 30 South, Range 23 East, is between Buena Vista Lake and McKittrick. When I spoke of Township 30 South, Range 32 East, I meant Township 32 South, Range 30 East.

(Thereupon counsel for the defendant announced: "That is all for the present. We reserve the right to recall Mr. Griffin for cross examination at a later period if we so desire.") [1027]

On Monday, July 29, 1912, at ten o'clock A. M., personally appeared before the special examiner, pursuant to the adjournment, Willis N. Mills, Special Assistant Attorney General; and thereupon the special examiner designated Tuesday, July 30th, 1912, at 10 o'clock A. M. at the court room of the United States Commerce Court, in the Southern Building, corner of 15th and H Streets, Washington, D. C., as the time and place at which the further hearing herein should be resumed.

On Tuesday, July 30, 1912, at ten o'clock A. M., the further taking of testimony herein was resumed pursuant to the adjournment, Willis N. Mills, Special Assistant Attorney General, appearing on behalf of the plaintiff, and Charles R. Lewers, Esq. and A. A. Hoehling, Jr., Esq., appearing on behalf of the defendants.

Whereupon the following proceedings were had:

Mr. Lewers—I desire to move that the name of Mr. A. A. Hoehling, Jr., be entered as attorney for the defendants in this case, with the exception of the Equitable Trust Company of New York. [1028]

Mr. Mills—Very well. In response to a request made upon Mr. Shoup, one of the solicitors for the defendants, except the Equitable Trust Company of New York, there was handed to me the manual from the Secretary's files of the Southern Pacific and auxiliary companies, for the years 1902 to 1909, inclusive, which I desire to offer in evidence. Said manuals are respectively marked plaintiff's exhibits "I I I" to "P P P" and received in evidence subject to any objection which counsel for the defendants desire to interpose at the next session.

From Manual No. 1, for the year 1902, marked Plaintiff's Exhibit "I I I", the title page and list of the auxiliary companies found on pages 1, 3, 6, 7, 8, 10, 12, 13, 14, 15, 17, 18, 19, 20, 22, 23, 24 and 25; and on pages 26, 27, 28, 29, 30, 33, 34 and 35, the matter appearing thereon; also a continuation of the list of the subsidiary companies found on pages 36, 37, 39 and 41 of the manual—all of which I now read into the record, as follows:

SOUTHERN PACIFIC and AUXILIARY
COMPANIES.

—OOO—

Manual No. 1—July 1, 1902.

—OOO—

Notice:—Officers receiving this volume will con-

fer a favor on the undersigned by giving him early notice of errors noted, or changes necessary, in the following pages.

Alex. Millar, Secretary. [1029]

(Secretary's Files)

SOUTHERN PACIFIC and AUXILIARY COMPANIES

Manual No. 1—1902.

—of—

Annual Meetings, Directors, Officers, Capital Stock, Funded Debt, Etc. July 1, 1902.

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(1)

Carson & Colorado Railway Company. Incorporated, California, February 27, 1892, for 50 years.

(2)

Central Pacific Railroad Company. Incorporated, California, August 22, 1870, for 50 years.

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(3)

Central Pacific Railway Company. Incorporated, Utah, July 29, 1899, for 50 years.

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(6)

Cromwell Steam Ship Company. Incorporated. New Jersey, July 13, 1889, for 50 years.

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(7)

The Direct Navigation Company. Incorporated, Texas, July 8, 1896, for 50 years. [1030]

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(8)

The Galveston, Harrisburg & San Antonio Rail-

way Co. Incorporated, Texas, February 11, 1850,
for Indefinite Time.

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(10)

The Galveston, Houston & Northern Railway Co.
Incorporated March 30, 1899, for 50 years.

.

(12)

Gila Valley, Globe & Northern Railway Company.
Incorporated, Arizona, January 15, 1894, for 50
years.

.

(13)

The Gulf, Western Texas & Pacific Railway Co.
Incorporated, Texas, September 5, 1850—under name
of The San Antonio and Mexican Gulf Railway
Company—which Company was consolidated with
the “Indianola Railroad Company”, under the name
and style of the Gulf, Western Texas & Pacific Ry.
Co., August 4, 1870.

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(14)

Houston & Shreveport Railroad Company. Incor-
porated, Louisiana, October 8, 1891. No definite
period stated.

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(15)

Houston & Texas Central Railroad Company. In-

corporated, Texas, August 1, 1889, for 50 years.
[1031]

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(17)

The Houston, East & West Texas Railway Com-
pany. Incorporated, Texas, March 11, 1875, for 50
years from Completion of Road.

.
(18)

The Iberia & Vermillion Railroad Company. In-
corporated, Louisiana, April 6, 1891.

.
(19)

Louisiana Western Railroad Company. Incor-
porated, Louisiana, Acts of Legislature of 1878, with
perpetual succession, approved March 30, 1878.

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(20)

Morgan's Louisiana & Texas Railroad & Steamship
Company. Incorporated, Louisiana, March 8, 1877,
for 40 years.

.
(22)

The New York, Texas & Mexican Railway Co. In-
corporated, Texas, October 18, 1880, for 50 years.

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(23)

Oregon & California Railroad Co. Incorporated,
Oregon, March 17, 1870, for 99 years.

.
(24)

Pacific Mail Steamship Co. Incorporated, New

York, April 12, 1848, for 20 years, since extended to 1908. [1032]

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(25)

San Antonio & Aransas Pass Railway Co. Incorporated, Texas, August 28, 1884, for 50 years.

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(26)

SOUTHERN PACIFIC COMPANY. Incorporated by Act of the General Assembly of the State of Kentucky, approved March 17, 1884, in perpetuity, for the purpose of unifying in management lines of railroad extending from New Orleans, La., to San Francisco, Cal., to Portland, Ore., and to Ogden, Utah.

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CONTROLLED PROPERTIES.

The Southern Pacific Company is the principal owner of the capital stock of the following companies, and operates them under leases to it: Central Pacific Railway, Oregon and California Railroad, Southern Pacific Railroad of California, Southern Pacific Railroad of Arizona, Southern Pacific Railroad of New Mexico, Southern Pacific Coast Railway.

The Southern Pacific is also the principal owner of the capital stock of the following companies, which are operated by their own organizations, viz: Galveston, Harrisburg & San Antonio Railway, Texas and New Orleans Railroad, New York, Texas & Mexican Railway.

(27)

Houston & Texas Central Railroad, Galveston, Houston & Northern Railroad, Carson & Colorado Railway; Houston, East & West Texas Railway, Houston & Shreveport Railroad, Gila Valley, Globe & Northern Railway; and it operates under leases from the Atchison, Topeka & Santa Fe the lines of the New Mexico & [1033] Arizona Railroad and the Sonora Railway Companies.

The Morgan's Louisiana & Texas Railway & Steamship Co. is the principal owner of stocks in the following companies, which are operated under their own organizations, viz: Gulf, Western Texas & Pacific Railway, Direct Navigation Co., Iberia & Vermillion Railroad.

In March, 1902, the Southern Pacific Railroad of California, the Southern Pacific Railroad of Arizona and the Southern Pacific Railroad of New Mexico were consolidated into a new California company, the Southern Pacific Railroad Co.

The total extent of the lines owned by all the companies is 9,145 miles, and the total operated 8,941 miles.

The Southern Pacific Company also operates steamship lines from New York to New Orleans, La., and Galveston, Tex., New Orleans to Havana, and to Bluefields, Nicaragua, as well as ferry, harbor and river lines in Louisiana, Texas and California, aggregating about 5,365 miles, and owns 25 ocean steamers. In 1900 the company acquired a control-

ling interest in the stock of the Pacific Mail Steamship Co.

The Mojave Division of the Southern Pacific Railroad, 242 miles, is leased to the Atchison, Topeka & Santa Fe Railway Company, until 1979, at an annual rental of \$218,133.

DIRECTORS (15), elected April 9, 1902:

T. J. Collidge, Jr., Boston.

Wm. D. Cornish, New York.

George J. Gould, Lakewood, N. J.

E. H. Harriman, Arden, N. Y. [1034]

Edwin Hawley, New York.

H. E. Huntington, San Francisco.

James H. Hyde, New York.

Otto H. Kahn, Morriston, N. J.

(x) J. W. Mackey, New York.

D. O. Mills, New York.

Winslow S. Pierce, New York.

Jacob H. Schiff, New York.

James Speyer, New York.

James Stillman, New York.

Charles H. Tweed, Chairman, New York.

(x) Deceased.

(28)

EXECUTIVE COMMITTEE (8), elected April 11, 1902:

E. H. Harriman, Chairman.

George J. Gould.

Edwin Hawley.

Otto H. Kahn.

Jacob H. Schiff.

James Speyer.

James Stillman.

Charles H. Tweed.

OFFICERS

EXECUTIVE DEPARTMENT, elected April 11, 1902:

E. H. Harriman, President, Arden, N. Y.

H. E. Huntington, Vice-President, San Francisco.

Charles H. Tweed, Second Vice-President, New York. [1035]

J. C. Stubbs, Third Vice-President, Chicago.

J. Kruttschnitt, Fourth Vice-President, San Francisco.

Alex. Millar, Clerk and Secretary, New York.

N. T. Smith, Treasurer, San Francisco.

A. K. Van Deventer, Assistant Treasurer, New York.

W. V. S. Thorne, Assistant Secretary (July 17, 1902), New York.

G. T. Klink, Assistant Secretary, San Francisco.

John B. Weaver, Assistant Clerk, Beechmont, Ky.

Alex Millar, Transfer Agent for Bonds and Stock, New York.

Otto C. Kahn, Asst. Trans. Agent for Bonds and Stock, New York.

A. K. Van Deventer, Assistant Secretary for signing Bonds and Stock, New York.

Union Trust Co., Registrar of Transfers, New New York.

LEGAL DEPARTMENT:

Charles H. Tweed, General Counsel, New York.

W. F. Herrin, Chief Counsel, San Francisco.

J. E. Foulds, Attorney, San Francisco.

D. R. Sessions, Claims Attorney, San Francisco.

E. B. Ryan, Tax Attorney, San Francisco.

W. W. Bretherton, Right of Way, Tax and Claim Agent, Portland.

ACCOUNTING DEPARTMENT:

Wm. Mahl, Comptroller, New York.

H. S. Bradt, Assistant Comptroller, New York.

[1036]

Erastus Young, General Auditor, Omaha.

G. T. Klink, Auditor, San Francisco.

C. J. Wilder, Assistant Auditor, San Francisco.

D. W. Horsburg, Freight Auditor, San Francisco.

H. S. Lincoln, Assistant Freight Auditor, San Francisco.

E. E. Holton, Ticket Auditor, San Francisco.

(29)

TRAFFIC DEPARTMENT:

J. C. Stubbs, Traffic Director, Chicago.

B. Campbell, Assistant Traffic Director, Chicago.

Wm. Sproule, Freight Traffic Manager, San Francisco.

G. W. Luce, General Freight Agent, San Francisco.

S. N. Bostwick, Assistant General Freight Agent, San Francisco.

Thos. A. Graham, Assistant General Freight Agent, San Francisco.

Chas. S. Fay, Assistant General Freight Agent, New Orleans.

W. E. Coman, General Freight and Passenger Agent, Lines in Oregon, Portland.

G. A. Parker, Asst. Gen. Freight and Pass. Agent, Los Angeles.

E. O. McCormick, Passenger Traffic Manager, San Francisco.

S. F. B. Morse, Asst. Passenger Traffic Manager, Houston.

T. H. Goodman, General Passenger Agent, San Francisco.

R. A. Donaldson, Asst. Gen. Pass. Agent, San Francisco.

Jas. Horsburg, Jr., Asst. Gen. Pass. Agent, San Francisco.

H. R. Judah, Asst. Gen. Pass. Agent, San Francisco.

M. L. Robbins, General Passenger Agent, Houston.

F. S. Decker, Asst. Gen. Pass. and Ticket Agent, New Orleans.

E. B. Carson, General Baggage Agent, San Francisco. [1037]

TRANSPORTATION DEPARTMENT:

J. Kruttschnitt, General Manager, San Francisco.

Jas. Agler, Manager, San Francisco.

R. Koehler, Manager, Lines in Oregon, Portland.

N. H. Foster, Manager's Assistant, San Francisco.

Geo. F. Richardson, Supt. of Transportation, Pacific and Atlantic Systems, San Francisco.

J. H. Wallace, Engineer, Maintenance of Way, Superintendent Telegraph, San Francisco.

H. J. Small, Gen. Supt. Motive Power, San Francisco.

Ben Welch, Master Car Builder, Sacramento.

ENGINEERING DEPARTMENT:

Wm. Hood, Chief Engineer, San Francisco.

LAND DEPARTMENT:

Wm. H. Mills, Land Agent, C. P. R. R., San Francisco.

Jerome Madden, Land Agent, S. P. R. R., San Francisco.

Geo. H. Andrews, Acting Land Agent, Portland.

C. C. Gibbs, Land Commissioner, San Antonio.

SUPPLY DEPARTMENT:

R. P. Schwerin, Manager, Purchases and Supplies, San Francisco.

R. Stevenson, Assistant Manager, Purchases and Supplies, San Francisco.

(30)

Southern Pacific Railroad Company. Incorporated, California, Arizona, and New Mexico, March 10, 1902, for 50 years. [1038]

□ [•] [•] [•] [•] [•] • • • • • • • • • •

FUNDED DEBT.

First Mortgage Gold Bonds of 1875, Series A to G, inclusive; authorized, \$46,000,000; issued \$39,285,000 (outstanding June 30, 1902, \$30,212,500), viz:

- A. Authorized and issued, \$15,000,000; dated April 1, 1875; due April 1, 1905; outstanding June 30, 1902. . \$12,636,500

- B. Authorized and issued, \$5,000,000;
dated October 1, 1875; due October
1, 1905; outstanding June 30, 1902. 4,521,000
- C. Authorized and issued, \$5,000,000,
dated October 1, 1876, due October
1, 1906; outstanding June 30, 1902. 4,016,000
- D. Authorized and issued, \$5,000,000;
dated October 1, 1876; due October
1, 1906; outstanding June 30, 1902. 3,915,000
- E. Authorized and issued, \$5,000,000;
dated April 1, 1882; due April 1,
1912; outstanding June 30, 1912.. 3,160,000
- F. Authorized, \$5,000,000; issued \$4,-
285,000; dated April 1, 1882; due
April 1, 1912; outstanding June
30, 1912 1,964,000
- G. Authorized, \$6,000,000; never issued.

Interest, 6 per cent., gold, payable April and Oc-
tober. Trustees, D. O. Mills, New York, and Homer
S. King, San Francisco. [1039]

(34)

Southern Pacific Branch Railway First Mortgage
Gold Bonds: authorized, \$9,000,000; issued, \$3,578,-
000; dated April 1, 1887; due April 1, 1937; outstand-
ing \$3,533,000. Interest, 6 per cent., gold, payable
April and October. Trustee, Union Trust Company
of San Francisco.

Stockton & Copperopolis R. R. First Mortgage
Gold Bonds: authorized and issued, \$500,000; dated
January 1, 1875; due January 1, 1905. Interest 5

per cent., gold, payable January and July. Trustee, J. L. Willcutt, San Francisco.

Southern Pacific R. R. First Consolidated Mortgage Gold Bonds of 1893: authorized, \$58,000,000, and such additional amount of bonds as may be sufficient to retire, bond for bond, outstanding first mortgage bonds of the S. P. R. R. Co., issued under the mortgage dated April 1, 1875; issued, \$27,144,000; dated November 1, 1893; due November 1, 1937; outstanding \$27,125,000. Interest 5 per cent., gold, payable May and November. Trustee, Central Trust Company of New York.

Note:—Bonds issued under the Stockton & Copperopolis R. R. Mortgage of January 1, 1875, Southern Pacific Branch Ry. Mortgage of November 24, 1886, and Southern Pacific R. R. Co. Mortgage of August 25, 1888 (now satisfied and discharged), to be retired out of the above-authorized issue of \$58,000,000.

Northern Railway First Mortgage Gold Bonds of 1877: authorized \$6,300,000; issued, \$5,156,000; dated January 1, 1877; due January 1, 1907. Interest, 6 per cent., gold, payable January and July. Trustees, Eugene Kelly and Henry B. Laidlaw, both of the city of New York. [1040]

Northern Railway First Mortgage Gold Bonds of 1888: authorized, \$21,000,000; issued, \$4,751,000; dated October 1, 1888; due October 1, 1938. Interest, 5 per cent., gold, payable April and October. Trustee, Union Trust Company of New York.

Northern California Railway First Mortgage Gold

Bonds: authorized, \$1,100,000; issued, \$1,074,000; dated November 1, 1889; due November 1, 1929. Interest, 5 per cent., gold, payable June and December. Trustee, California Safe Deposit & Trust Co. of San Francisco.

California Pacific R. R. First Mortgage Gold Bonds: authorized and issued, \$2,250,000; dated January 1, 1867; due January 1, 1912. Interest, $4\frac{1}{2}$ per cent., gold, payable January and July. Trustees, Jas. O'B. Gunn and Chas. E. Green, both of the City of San Francisco, Cal.

California Pacific R. R. Second Mortgage Gold Bonds: authorized and issued, \$1,600,000; dated August 9, 1871; due January 1, 1911. Interest, $4\frac{1}{2}$ per cent., gold, payable January and July. Trustees, Jas. O'B. Gunn and Chas. E. Green, both of the City of San Francisco, Cal.

(35)

California Pacific R. R. Third Mortgage Gold Bonds: authorized, \$2,000,000; issued, \$1,998,500; dated July 1, 1875; due July 1, 1905. Interest, 6 per cent., gold, payable January and July. Trustee, Stephen T. Gage, of the City of San Francisco, Cal.

California Pacific R. R. Third Mortgage Gold Bonds: authorized and issued, \$1,000,000; dated July 1, 1875; due July 1, 1905. Interest, 3 per cent., gold, payable January [1041] and July. Trustee, Stephen T. Gage, of the City of San Francisco, Cal.

Southern Pacific R. R. (of Arizona) First Mortgage Gold Bonds: authorized and issued, \$10,000,000; Series A, amounting to \$6,000,000; dated March 1,

1879; due March 1, 1909, and Series B, \$4,000,000; dated March 1, 1880; due March 1, 1909, and Interest, 6 per cent., gold, payable January and July. Trustees, I. W. Hellman and Union Trust Company, both of the City of San Francisco, Cal.

Southern Pacific R. R. of New Mexico First Mortgage Gold Bonds: authorized, \$5,000,000; issued, \$4,180,000; dated January 1, 1881; due January 1, 1911. Interest, 6 per cent., gold, payable January and July. Trustees, I. W. Hellman and Union Trust Company, both of the city of San Francisco, Cal.

DIRECTORS (11), elected June 5, 1902:

E. H. Harriman, Arden, N. Y.

Alvinza Hayward, San Francisco.

I. W. Hellman, San Francisco.

Wm. F. Herrin, San Francisco.

Homer S. King, San Francisco.

J. Kruttschnitt, San Francisco.

J. S. Slauson, Los Angeles.

N. T. Smith, San Francisco.

Chas. H. Tweed, New York.

J. L. Willcutt, San Francisco.

Jas. K. Wilson, San Francisco.

OFFICERS, elected June 5, 1902:

E. H. Harriman, President, Arden, N. Y.

Chas. H. Tweed, Vice-President, New York. [1042]

J. Kruttschnitt, Second Vice-President, San Francisco.

N. T. Smith, Treasurer, San Francisco.

A. K. Van Deventer, Assistant Treasurer, New York.

J. L. Willcutt, Secretary, San Francisco.

Alex. Millar, Assistant Secretary, New York.

Alex Millar, Transfer Agent for Registered Bonds,
New York.

Chas. P. Lincoln, Transfer Agent for Registered
Bonds, San Francisco.

(36)

Southern Pacific Terminal Co. Incorporated,
Texas, July, 6, 1901, for 50 years.

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(37)

South Pacific Coast Railway Company. Incor-
porated, California, May 23, 1887, for 50 years.

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(39)

Texas & New Orleans Railroad Co. Incorporated,
Texas, September 1, 1856, for 90 years.

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(41)

Wells Fargo & Company. Established, New York,
March 18, 1852, and incorporated, Colorado, Feb-
ruary 5, 1866. Charter unlimited as to duration.

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Manual No. 2, for the year 1903, marked plaintiff's
exhibit "J J J", the title page, the index and such
matter as [1043] appears on pages 21, 30, 33, 34, 35,
36, 37, 40, 41 and 42, as follows, which I will read into
the record:

SOUTHERN PACIFIC and AUXILIARY
COMPANIES.

—————oOo—————

Manual No. 2—July 1, 1903.

—————oOo—————

Notice:—Officers receiving this volume will confer a favor on the undersigned by giving him early notice of errors noted, or changes necessary, in the following pages.

Alex Millar, Secretary.

(Secretary's Files.)

SOUTHERN PACIFIC and AUXILIARY
COMPANIES.

Manual No. 2—1903.

of

Annual Meetings, Directors, Officers, Capital Stock,
Funded Debt, etc.

July 1, 1903.

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(21)

Kern Trading & Oil Co. Incorporated, California,
May 22, 1903, for 50 years.

ANNUAL MEETING may be held at San Fran-
cisco on last Saturday in May. Notices to be pub-

lished in one or more papers [1045] in the City and County of San Francisco, as the Directors may determine, at least ten days previously, or to be given in writing by the President to each stockholder personally.

Meetings of Directors, whenever necessary, on call of President.

No specification for close of fiscal year.

CAPITAL STOCK: authorized and issued, \$1,000,000. Shares \$100 each.

DIRECTORS (5), elected May 22, 1903:

J. E. Foulds, Berkeley.

J. Kruttschnitt, San Francisco.

J. H. Wallace, San Francisco.

J. L. Willcutt, San Francisco.

W. A. Worthington, San Francisco.

OFFICERS, elected May 22, 1903:

J. Kruttschnitt, President, San Francisco.

J. E. Foulds, Vice-President, Berkeley.

J. L. Willcutt, Secretary, San Francisco.

N. T. Smith, Treasurer, San Francisco.

(30)

Rio Bravo Oil Co. Incorporated, Texas, March 3, 1903, for 50 years.

ANNUAL MEETING, Houston, Texas, second Monday in January. Written notice to be given at least five days previously.

Meeting of Directors can be held at any time.

Fiscal year closes June 30.

CAPITAL STOCK: authorized, \$1,000,000. Shares \$100 each.

DIRECTORS (5), elected March 13, 1903:

C. C. Barry, Houston. [1046]

E. T. Dumble, Houston.

C. H. Markham, Houston.

C. B. Seger, Houston.

W. G. Van Vleck, Houston.

OFFICERS, elected March 13, 1903:

C. H. Markham, President, Houston.

E. T. Dumble, Vice-President, Houston.

C. B. Seger, Secretary, Houston.

B. C. Cushman, Treasurer, Houston.

(33)

Southern Pacific Company. Incorporated by Act of the General Assembly of the State of Kentucky, approved March 17, 1884, in perpetuity, for the purpose of unifying in management lines of railroad extending from New Orleans, La., to San Francisco, Cal., to Portland, Ore., and to Ogden, Utah.

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CONTROLLED PROPERTIES.

The Southern Pacific Company is the principal owner of the capital stock of the following companies, and operates them under leases to it: Central Pacific Railway, Oregon and California Railroad, Southern Pacific Railroad, South Pacific Coast Railway.

The Southern Pacific is also the principal owner of the capital stock of the following companies, which are operated by their own organizations, viz: Galveston, Harrisburg & San Antonio Railway, Texas

(34)

and New Orleans Railroad, Louisiana Western Rail-

road, Maricopa and Phoenix and Salt River Valley Railroad, New York, Texas & [1047] Mexican Railway, Houston & Texas Central Railroad, Galveston, Houston & Northern Railroad, Carson & Colorado Railway, Houston East and West Texas Railway, Houston & Shreveport Railroad, Gila Valley, Globe and Northern Railway; owner of half the stock of the Sunset Railroad Co.; and it operates under leases from the Atchison, Topeka & Santa Fe the lines of the New Mexico & Arizona Railroad and the Sonora Railway companies.

The Morgan's Louisiana & Texas Railway & Steamship Co. is the principal owner of stocks of the following companies, which are operated under their own organizations, viz.: Gulf, Western Texas & Pacific Railway, Direct Navigation Co., Iberia & Vermillion Railroad.

In March, 1902, the Southern Pacific Railroad of California, the Southern Pacific Railroad of Arizona and the Southern Pacific Railroad of New Mexico were consolidated into a new company, the Southern Pacific Railroad Co.

The Southern Pacific Company also operates steamship lines from New York to New Orleans, La., and Galveston, Tex., New Orleans to Havana, and to Bluefields, Nicaragua, as well as ferry, harbor, and river lines in Louisiana, Texas and California, aggregating about 5,365 miles, and owns 25 ocean steamers. In 1900 the company acquired a controlling interest in the stock of the Pacific Mail Steamship

